

Intellex RFID Tags

Extended Capability RFID

The Intellex battery-assisted passive RFID tags deliver exceptionally high read/write accuracy and long range operation, ensuring accurate reads and writes on fully-loaded pallets and containers at up to 50 meters (+150 ft). Extended on-tag memory provides 64 Kb of total storage for data such as asset ID, status, location, history, and e-manifest – enabling immediate access to information – and provide robust security through password protection and block level data locking.

INTELLEX TAG FAMILY



The [STT-7000](#) general purpose tags provide extended range, reliability, memory, and security for multipurpose asset tracking applications indoors and outdoors. They are rugged, compact thin profile tags that offer outstanding read/write range of up to 50 meters (+150 ft).



The [SMT-7100](#) tags are for use on metals, liquids and other challenging environments. Based on patent pending tag antenna design, the SMT-7100 is the first tag that offers long range, on-edge performance. The tags can be mounted on reusable totes, heavy machinery, trucks, rail cars, cargo containers and more.



The [SXT-7110](#) extended temperature tags are designed to withstand severe temperatures and other demanding environments. The SXT-7110 tag's high temperature battery and materials make it ideal for harsh industrial applications and ensure operation in temperature ranges from -40°F to +257°F (-40°C to +125°C).



The [BAT-7300](#) thin profile tags provide extended range and reliability for personnel tracking, zone locationing and asset security applications. The tags provide exceptionally high read/write accuracy and long range operation. In applications such as vehicle yard management and IT asset tracking, BAT-7300 tags provide visibility to both the asset and the person(s) responsible for its movement.



The [FBT-7400](#) fob tag is a long range, highly compact tag designed for loop attachment to key rings and other items with similar style mounting requirements. At approximately one half cubic inch in size, the FBT-7400 offers great read/write range of up to 25 meters (80+ feet).



FEATURES

BENEFITS

Robust RF Communications

- Low turn-on threshold
 - High receive signal sensitivity/backscatter efficiency
 - Read/write on edge^{1,2}
- Up to 50 meter (150+ ft) read/write range
 - Exceptional read/write reliability in real world environments
 - High read/write reliability in all tag orientations^{1,2}
 - Take advantage of multipath in metal rich environments
 - Read metal containers from forklifts

Efficient Power Management

- Multi-stage wake up
- Long battery life (up to 5 years), based on duty cycle

60 Kb User-rewritable Memory

- Stores user information locally on tags:
 - E-manifest, maintenance records, custody chain, history, etc.

Activation of Selected Group of Tags

- Enables faster identification and sorting of tagged items

Built-in Application-specific Security

- Lockable read/write user memory protects data integrity
- 1 Kb block level locking with separate read/write permalock password protection

1. On-edge read/write feature available on SMT-7100 and SXT-7110 tags only.

2. The SMT-7100 and SXT-7110 tags are directional tags and cannot be read from the back.

SPECIFICATIONS¹

Device Type	Class 3 RFID (battery-assisted passive) single chip transponder
Protocol	Class 3
Operating Frequency	902-928 MHz (North America); 865-868 MHz (Europe/India)
Range²	Up to 50 m (+150 ft) in open space
Battery Life	Up to 5 years depending on use; data is persistent and also readable at close range upon battery expiration
Data Rates	8 Kb/sec forward link 8 or 32 Kb/sec reverse link
Data Retention	10 years at 85°C
Memory	64 Kb total, 60 Kb rewritable non-volatile user memory
Environmental	
Enclosure Protection	STT-7000, SMT-7100, SXT-7110: IP67 BAT-7300, FBT-7400: IP55
Storage and Operating Temperature	STT-7000, SMT-7100, BAT-7300, FBT-7400: -4° to +140°F (-20° to +60°C) SXT-7110: -40° to +257°F (-40° to +125°C)
Shock	IEC 60068-2-32, test Ed
Vibration	IEC 60068-2-6, test Fc
General Dimensions	STT-7000: 2.95" x 2.95" x 0.33" (75 mm x 75 mm x 8.5 mm) (L x W x D) SMT-7100, SXT-7110: 2.95" x 2.95" x 0.62" (75 mm x 75 mm x 15.8 mm) BAT-7300: 3.45" x 2.2" x 0.12" (87.6 mm x 56 mm x 3 mm) FBT-7400: 1.2" x 1.2" x 0.6" (30 mm x 30 mm x 14 mm)

1. Intellex reserves the right to change product information and specifications without notice.

2. For best tag performance, Intellex recommends using circular polarized antennas with the reader (part number IA410.1).

