



# ImproX Antenna Readers

## Product Specification Catalogue

The **ImproX 125 kHz Antenna Readers** are compact, 125 kHz Tag Readers.

The Antenna Readers are compatible with the SupaGate, IXP20, IXP220 or ImproNet Access Control Systems.

The Antenna Readers include a single bi-coloured Red or Green Status LED. Selected models also include a single tone Buzzer. You can adjust the Buzzer volume to any one of these four levels (off, low, medium and high). You can set the functions of the Buzzer and Status LED to suit the needs of your application.

Selected models feature a 12-button numeric or alphanumeric (model dependent) Keypad. You may use the Keypad for Personal Access Code (PAC), PIN-Code or Reason Code entry.

Intended for indoor or outdoor use, selected models feature robust metal housings and fully potted electronic components. The potting compound prevents vandals tampering with the electronic components.

## Key Features

- A single bi-coloured Red or Green Status LED.
- When used in OEM applications, Read/Write Tag capability for various Tag types: Slim Tags (Read Only), Omega Tags (Read Only), Philips HITAG™ 1 (Read/Write) and Philips HITAG™ 2 (Read/Write).
- Includes a single tone Buzzer (excludes model XTT901). You can adjust the Buzzer volume to any one of these four levels (off, low, medium and high).
- Models XTT904 and XTT907 include a 12 button alphanumeric Keypad. Models XTT905 and XTT952 include a 12 button numeric Keypad. You may use these Keypads for Personal Access Code (PAC), PIN-Code or Reason Code entry.
- Model XTT905 includes a Doorbell facility.
- Models XTT908 and XTT909 are designed to be mounted in user supplied enclosures. The ImproX CA (XTT909) is approved for use with the following Electrical Conduit Blanking Plates (specific to the European Market): Jung LS994B, Jung CD500, Merten ARTEC and Gira System 55.
- Reads HID 125 kHz Tags.
- Operates at a frequency of 125 kHz.

## ImproX 125 kHz Antenna Readers

XTT901-1-0-GB-XX	XTT902-1-0-GB-XX	XTT903-1-0-GB-XX
XTT904-1-0-GB-XX	XTT905-1-0-GB-XX	XTT906-1-0-GB-XX
XTT907-1-0-GB-XX	XTT908-1-0-GB-XX	XTT909-1-0-GB-XX
XTT950-1-0-GB-XX	XTT951-1-0-GB-XX	XTT952-1-0-GB-XX

## Reading Range (Tag)

Tag Type	Typical Range (Minimum) (mm)	Typical Range (Minimum) (in)
ISO Credit Card (Slim)	25 - 50	1 - 2
ISO Credit Card (Omega)	25 - 50	1 - 2
Tear Drop Tag	25 - 50	1 - 2
Key Ring Tag	25 - 50	1 - 2
Pico Tag	25 - 50	1 - 2
Philips HITAG™ 1	25 - 50	1 - 2
Philips HITAG™ 2	25 - 50	1 - 2
HID 125 kHz Tags	25 - 50	1 - 2

**NOTE:** *HID is a registered trademark of HID Global Corporation (an ASSA ABLOY Group Brand).*

**NOTE:** *Mounting the Antenna Reader on a metallic surface will reduce the Tag reading range slightly.*

## Physical Specifications

### XTT901 ImproX (MMA) Mullion Antenna Reader

Length	: 59 mm (2.3 in).
Width	: 43 mm (1.7 in).
Height	: 16 mm (0.6 in).
Approximate Weight	: 67 g (2.4 oz).
Housing Material	: ABS Plastic.
Colour	: Dark Grey.

### XTT902 ImproX (MA) Micro Antenna Reader

Length	: 88 mm (3.5 in).
Width	: 54 mm (2.1 in).
Height	: 25 mm (1 in).
Approximate Weight	: 100 g (3.6 oz).
Housing Material	: ABS Plastic.
Colour	: Dark Grey.

### XTT903 ImproX (MHA) Metal Antenna Reader

Length	: 75 mm (3 in).
Width	: 72 mm (3 in).
Height	: 27 mm (1 in).
Approximate Weight	: 220 g (7.8 oz).
Housing Material	: Die-cast Zinc Alloy.
Colour	: Satin Nickel.

### XTT904 ImproX (KHA) Metal Keypad Antenna Reader

Length	: 142 mm (5.5 in).
Width	: 76 mm (3 in).
Height	: 27 mm (1 in).
Approximate Weight	: 510 g (18 oz).

### XTT904 ImproX (KHA) Metal Keypad Antenna Reader (Continued)

Housing Material	: Die-cast Zinc Alloy.
Colour	: Satin Nickel.

### XTT905 ImproX (KMA) Mullion Keypad Antenna Reader

Length	: 116 mm (4.5 in).
Width	: 38 mm (1.5 in).
Height	: 18 mm (0.7 in).
Approximate Weight	: 41 g (1.5 oz).
Housing Material	: ABS Plastic.
Colour	: Black.

### XTT906 ImproX (RA) Rod Antenna Reader

Length	: 83 mm (3 in).
Diameter	: 20 mm (0.8 in).
Approximate Weight	: 160 g (5.5 oz).
Housing Material	: PVC sheathing with Polyurethane potting.
Colour	: White.

### XTT907 ImproX (KA) Keypad Antenna Reader

Length	: 113 mm (4.5 in).
Width	: 81 mm (3 in).
Height	: 32 mm (1 in).
Approximate Weight	: 200 g (7 oz).
Housing Material	: ABS Plastic.
Colour	: Dark Grey.

### XTT908 ImproX (DPA) Door Entry Panel Antenna Reader

Length	: 68 mm (3 in).
Width	: 68 mm (3 in).
Height	: 15 mm (0.5 in).
Approximate Weight	: 176 g (6 oz).
Housing Material	: ABS Plastic.
Colour	: Black.

### XTT909 ImproX (CA) Conduit Antenna Reader

Length	: 39 mm (1.5 in).
Width	: 27 mm (1 in).
Height	: 14 mm (0.5 in).
Approximate Weight	: 10 g (0.3 oz).

### XTT950 ImproX (JB) Junction Box Antenna Reader

Length	: 120 mm (4.7 in).
Width	: 72 mm (2.8 in).
Height	: 19 mm (0.7 in).
Approximate Weight	: 145 g (5.1 oz).
Housing Material	: ABS Plastic.
Colour	: Black.

### XTT951 ImproX (AMR) Antenna Metal Reader

Length	: 97 mm (3.8 in).
Width	: 45 mm (1.8 in).
Height	: 21 mm (0.8 in).
Approximate Weight	: 70 g (2.5 oz).
Housing Material	: ABS Plastic.

### XTT951 ImproX (AMR) Antenna Metal Reader (Continued)

Colour	: Black.
Face Plate Material	: 304 Stainless Steel.
Colour	: Brushed Stainless Steel.

### XTT952 ImproX (AMK) Antenna Metal Keypad Reader

Length	: 97 mm (3.8 in).
Width	: 45 mm (1.8 in).
Height	: 21 mm (0.8 in).
Approximate Weight	: 75 g (2.6 oz).
Housing Material	: ABS Plastic.
Colour	: Black.
Face Plate Material	: 304 Stainless Steel.
Colour	: Brushed Stainless Steel.

**NOTE:** Certain plastic Readers (XTT901, XTT902, XTT905, XTT907, XTT908, XTT951 and XTT952) are RoHS compliant and do not contain any UV stabilizer.

## Environmental Specifications

Operating Temperature	: -25°C to +60°C (-13°F to +140°F).
Storage Temperature	: -40°C to +80°C (-40°F to +176°F).
Humidity Range	: 0 to 95% relative humidity at +40°C (+104°F) non-condensing.

### Approvals

CE Approval	: CISPR22, IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6 and IEC61000-4-8.
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FCC Approval (XTT901, XTT902, XTT903, XTT904, XTT905, XTT906, XTT907)	: Approved.
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FCC Approval (XTT908, XTT909, XTT951 and XTT952)	: Pending.
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Dust & Splash Resistance (XTT901, XTT906, XTT908)	: Designed to work in an indoor or outdoor environment similar to IP66. The Antenna Readers are, therefore, sealed (potted) against water.
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Dust & Splash Resistance (XTT902, XTT903, XTT904, XTT907)	: Designed to work in an indoor or outdoor environment similar to IP53. The Antenna Readers are, therefore, sealed (potted) against water.
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Dust & Splash Resistance (XTT905)	: Designed to work in an indoor or protected outdoor environment similar to IP42. The Antenna Reader is, therefore, not sealed against water.
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Dust & Splash Resistance (XTT909)	: The IP rating for this Antenna Reader is equivalent to the selected Cabinet's rating.
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Dust & Splash Resistance (XTT950, XTT951 and XTT952)	: Designed to work in an indoor or protected outdoor environment similar to IP54.
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Drop Endurance	: 2 m (6.56 ft) drop (in packaging).
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## User Interfaces

### Buzzer

Volume and Tone	: Single tone, 4-step adjustable volume.
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**NOTE:** The ImproX MMA (XTT901) does not include a Buzzer.

### Keypad

XTT904 and XTT907	: 12 Alphanumeric keys.
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XTT905 and XTT952	: 12 Numeric keys.
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## Status Indicator

Status LED : Bi-coloured Red or Green (externally visible).

## Related Information

For extra information relating to this product refer to the:

- ImproX Antenna Readers Hardware Installation Manual (XTT301-0-0-GB-XX).

## Ordering Information

Order the ImproX Antenna Readers using the following Part Numbers:

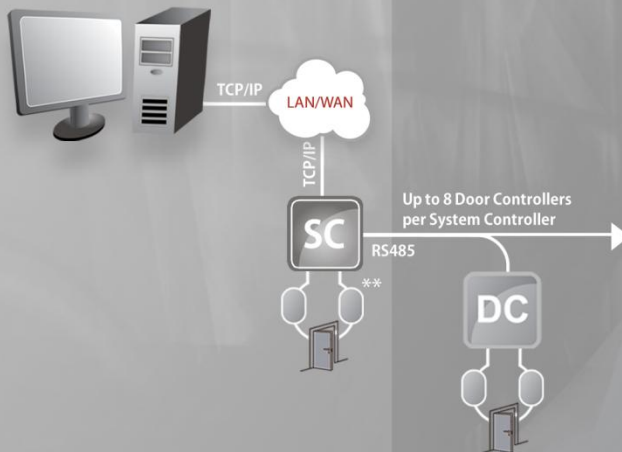
- XTT901-1-0-GB-XX: ImproX (MMA) 125 kHz Mullion Antenna Reader.
- XTT902-1-0-GB-XX: ImproX (MA) 125 kHz Micro Antenna Reader.
- XTT903-1-0-GB-XX: ImproX (MHA) 125 kHz Metal Antenna Reader.
- XTT904-1-0-GB-XX: ImproX (KHA) 125 kHz Metal Keypad Antenna Reader.

- XTT905-1-0-GB-XX: ImproX (KMA) 125 kHz Mullion Keypad Antenna Reader.
- XTT906-1-0-GB-XX: ImproX (RA) 125 kHz Rod Antenna Reader.
- XTT907-1-0-GB-XX: ImproX (KA) 125 kHz Keypad Antenna Reader.
- XTT908-1-0-GB-XX: ImproX (DPA) 125 kHz Door Entry Panel Antenna Reader.
- XTT909-1-0-GB-XX: ImproX (CA) 125 kHz Conduit Antenna Reader.
- XTT950-1-0-GB-XX: ImproX (JB) 125 kHz Junction Box Antenna Reader.
- XTT951-1-0-GB-XX: ImproX (AMR) 125 kHz Antenna Metal Reader.
- XTT952-1-0-GB-XX: ImproX (AMK) 125 kHz Antenna Metal Keypad Reader.

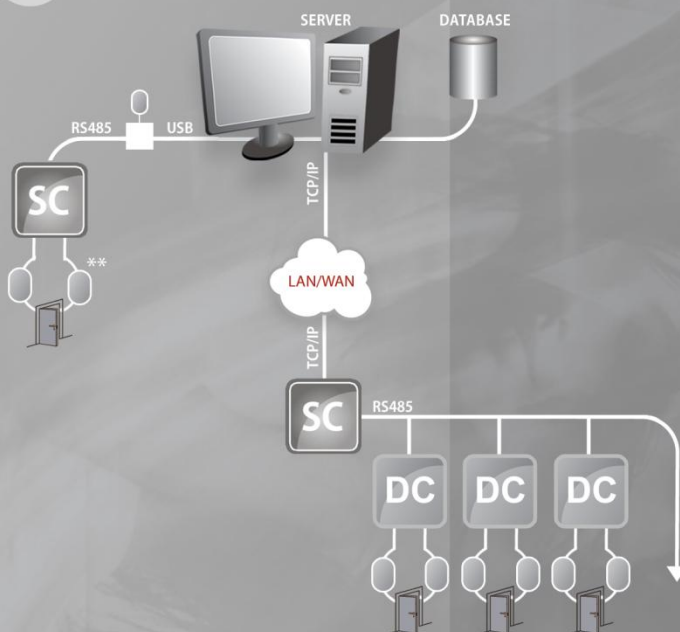
## Warranty Details

This product conforms to our Warranty details on [www.impro.net](http://www.impro.net).

### 1 ANTENNA READERS IN AN IXP20 SYSTEM\*



### 2 ANTENNA READERS IN AN IXP220 OR IMPRONET SYSTEM



### KEY for diagram



#### SYSTEM Controllers - selection

The ImproXAntenna Reader range can be used within the IXP20, IXP220 and ImproNet Systems.

\* This diagram shows the Web Interface IXP20 Controller (ISC910). The IXP20 is also available with a Touch Screen (ISC911). ISC911 does not require a PC connection.

\*\* The following scenario applies to the IXP20 and IXP220 Controllers only.



#### DOOR Controllers - selection

In an IXP20 System, the ImproXAntenna Readers are compatible with the following Door Controller:

- ImproX ITT

In an IXP220 or ImproNet System, the ImproXAntenna Readers are compatible with the following Door Controllers:

- ImproX MFT

- ImproX ITT



#### DOOR (ANTENNA) Readers - selection

- ImproX (MMA) 125 kHz Mullion Antenna Reader

- ImproX (MA) 125 kHz Micro Antenna Reader

- ImproX (MHA) 125 kHz Metal Antenna Reader

- ImproX (KHA) 125 kHz Metal Keypad Antenna Reader

- ImproX (KMA) 125 kHz Mullion Keypad Antenna Reader

- ImproX (RA) 125 kHz Rod Antenna Reader

- ImproX (KA) 125 kHz Keypad Antenna Reader

- ImproX (DPA) 125 kHz Door Entry Panel Antenna Reader

- ImproX (CA) 125 kHz Conduit Antenna Reader

- ImproX (JB) 125 kHz Junction Box Antenna Reader

- ImproX (AMR) 125 kHz Antenna Metal Reader

- ImproX (AMK) 125 kHz Antenna Metal Keypad Reader



#### TAG REGISTRATION Reader

In an IXP220 or ImproNet System, the ImproX Antenna Readers are compatible with the following Registration Interfaces:

- ImproX (RS) Registration Interface

- ImproX (RH) Registration Interface

Figure 1: ImproX Antenna Reader Overview

This manual applies to the ImproX 125 kHz Antenna Readers, XTT901-1-0-GB-00, XTT902-1-0-GB-01, XTT903-1-0-GB-00, XTT904-1-0-GB-03, XTT905-1-0-GB-01, XTT906-1-0-GB-00, XTT907-1-0-GB-01, XTT908-1-0-GB-01, XTT909-1-0-GB-00, XTT950-1-0-GB-01, XTT951-1-0-GB-02 and XTT952-1-0-GB-02.  
(The last two digits of the Impro stock code point to the issue status of the product).

XTT351-0-0-GB-11	Issue 12	September 2011	ImproX Antenna Readers\Product Specification Catalogue\LATEST ISSUE\AntRdrs-psc-en-12.docx
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