

## FEATURES

- **Fully self-contained, integrated reader**
- **Ideal for parking and access control applications**
- **915 MHz RF band operation**
- **Selectable RF output power**
- **Compatibility with a wide range of industry-standard formats**
- **Wiegand capability**
- **Weatherproof enclosure**
- **Quick, simple installation by trained, authorized personnel**

# AI1620 SmartPass® Reader



The AI1620 SmartPass Reader is an antenna, radio frequency (RF) module, tag decoder, and power supply in one integrated package. The AI1620 SmartPass Reader is ideal for parking and access control applications.

Operating at specified frequencies in the 915 MHz band, the AI1620 SmartPass Reader generates an RF signal that is reflected from an Amtech® technology RF identification tag. The AI1620 SmartPass Reader then decodes the tag data carried by the reflected signal. This data is transmitted to a local security panel or host computer for processing.

The AI1620 SmartPass Reader provides selectable high or low RF output power based on each site's requirements, giving the user a choice of battery-free or battery-powered tags.

The AI1620 SmartPass Reader reads tags formatted to a wide range of industry-standard proprietary formats, including SIA Wiegand 26-bit standard format. The customer can specify custom Wiegand 26- to 54-bit (inclusive) formats to match identification card formats used by existing security systems. The AI1620 SmartPass Reader reads a variety of TransCore's tag models, including half-frame 64-bit tags and full-frame 128-bit tags.

The AI1620 SmartPass Reader uses the same communications protocols and most command and status message codes as TransCore's AI1200- and AI1300-series readers.

The reader has a durable polycarbonate radome, factory-sealed to a coated aluminum back. The enclosure includes an up-and-down adjustable bracket for pole mounting. The AI1620 SmartPass Reader is quickly and easily installed and tested by trained, authorized personnel.

# AI1620 SmartPass® Reader

## COMMUNICATIONS

### Frequency Range

902 to 928 MHz

### RF Control

By sense input or host command

### Polarization

Horizontal or vertical

### Read Range

Read performance varies depending on tag and reader configuration and environment. Read range for the AI1620 SmartPass Reader is 12 ft (3.7 m) typical to 35 ft (11 m) maximum.

Consult the *AI1620 SmartPass System Guide* for tag and reader selection.

### I/O Control

**Input:** Two independent dry contact closures for sense circuits

**Output:** Two independent Form-C contacts

## POWER REQUIREMENTS

### Input Power

16 to 20V AC, 47 to 63 Hz, or 16 to 28V DC

## PHYSICAL

### Dimensions

Size: 15.5 x 15.5 x 3.25 in  
(39.4 x 39.4 x 8.25 cm)

Weight: 9.5 lb (4.3 kg)

### Mounting

Pole or wall mount  
Indoor or outdoor

### Enclosure

The system is sealed in a tamper-proof, polycarbonate housing.

## ENVIRONMENTAL

### Operating Temperature

-40°F to +122°F  
(-40°C to +50°C)

### Humidity

100% condensing

### Vibration

0.5 G<sub>rms</sub>, 10 to 500 Hz

## STANDARDS

The AI1620 SmartPass Reader complies with the requirements of Underwriters Laboratories UL-1950 Standard for Safety of Information Technology Equipment.

The AI1620 SmartPass Reader is compatible with International Standards Organization (ISO) and American National Standards Institute (ANSI) tag standards for automatic equipment identification (AEI).

## LICENSING

### Equipment License

The user is required to obtain a Part 90 site license from the FCC to operate the unit in the United States. Access the FCC Web site at [www.fcc.gov/Forms/Form601/601.html](http://www.fcc.gov/Forms/Form601/601.html) for more information.

FCC ID: F1HXXXXXXXXXX (See product label for actual ID number.)

Users in all countries should check with the appropriate local authorities for licensing requirements.

## COMPLIANCE

### RF Interference

Units have been tested and are verified to Part 15 of the FCC rules for a Class A digital device.

## OPTIONS

### Communications Interface

RS-232, RS-422, or RS-485 with Wiegand-compatible host interface

## Cable Accessory Kits

Cable accessory kits allow flexibility in installing SmartPass. Include the part number when ordering.

**Part number 58-1620-001:** Connector with 5 ft (1.5 m) cable

**Part number 58-1620-002:** Connector with 20 ft (6.1 m) cable

## Wall Mount Bracket

Allows adjustment in all planes when used to install an AI1620 SmartPass Reader on a flat surface. Include the part number 54-1620-001 when ordering.

## Transformer

A Class C transformer (part no. 76-1620-005) is available to allow 110V AC to 18V AC conversion. Include the part number when ordering.

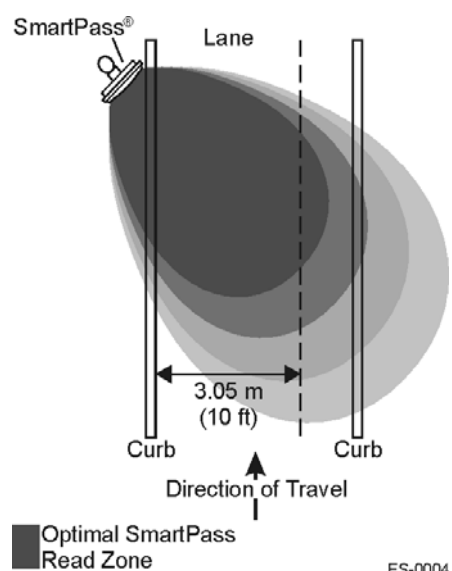
## TRAINING

Installation, operation, and maintenance training for TransCore-authorized dealers is available through TransCore. For details, call (800) 755-0378.

## DOCUMENTATION

*AI1620 SmartPass System Guide*

*AI1620 SmartPass Field Installation Guide*



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**TRANSCORE**

**For product information call:** 1.800.923.4824 or 972.733.6600 (outside the U.S.) Fax 972.733.6486

[www.transcore.com](http://www.transcore.com)

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