READER

AI1620 SmartPass ®

Features

- **Reads tags formatted to a wide range of industry-standard proprietary formats, including SIA Wiegand 26-bit standard format. Custom Wiegand 26- to 54-bit (inclusive) formats can be developed to match identification card formats used by existing security systems.**

- **Allows selection of high or low RF output power based on each site's requirements, giving the user a choice of battery-free or battery-powered tags**

- **Reads a variety of Amtech tag models, including full-frame (128 bits) and half-frame (64 bits) tags**

- **Uses the same communications protocols and most command and status message codes as Amtech's AI1200- and AI1300-series readers**

- **Designed for quick, simple installation and testing by trained, authorized personnel**

The AI1620 SmartPass is an antenna, radio frequency (RF) module, tag decoder, and power supply in one integrated package. The unit is supplied with a pole-mount bracket specifically designed for controlled traffic lanes.

SmartPass generates an RF signal that is reflected from an Amtech RF identification tag. SmartPass then decodes the tag data carried by the reflected signal. This data is transmitted to a local host computer for processing.

Amtech Systems Division

*I*ntermec
Technologies Corporation

AI1620 SmartPass®

COMMUNICATIONS

Frequency Range
902 to 928 MHz

RF Control
By sense input or host command

Polarization
Horizontal or vertical

Range
Optimal: 3.7 m (12 ft)
Maximum: 11 m (35 ft)

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

PHYSICAL

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

Weight: 4.3 kg (9.5 lb)

Mounting
Pole or wall mount
Indoor or outdoor

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

ENVIRONMENTAL

Operating Temperature
-40°C to + 50°C
(-40°F to + 122°F)

Humidity
100% condensing

Vibration
0.5 $G_{rms,}$ 10 to 500 Hz

STANDARDS

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

LICENSING

Local regulations apply. Operation in the United States is regulated by the FCC. The user is required to obtain a license issued by the FCC.

SmartPass is 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 is available.

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

58-1620-001: Connector with 1.5 m (5 ft) cable
58-1620-002: Connector with 6.1 m (20 ft) cable

Wall Mount Bracket
Allows adjustment in all planes when used to install SmartPass on a flat surface. Include the part number 54-1620-001 when ordering.
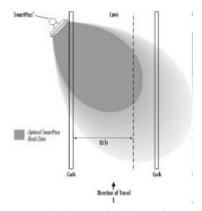
Transformer
A Class C transformer (part no. 76-1620-005) is available to allow 110 V AC to 18 V AC conversion. Include the part number when ordering.

TRAINING

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

DOCUMENTATION

AI1620 SmartPass System Guide

AI1620 SmartPass Field Installation Guide

Typical Lane Configuration

intermec Technologies Corporation