AI1202-1205 Readers

Features
- Harsh environment tolerant
- Vibration and shock resistant
- Dual-channel multiplex operation
- Optional single-channel operation available
- Operations controlled by user-specified reader commands
- ID search and filtering functions
- Standard 64K RAM memory
- Sense input control of RF module
- Output control of external equipment
- Weatherproof enclosure

The microprocessor-controlled, dual-channel AI1202-1205 Reader series provides an operational link between objects with radio frequency (RF) tags and host information management systems. The vibration and shock resistant AI1202-1205 series readers are the harsh-environment versions of TransCore’s AI1200 Readers.

The reader receives a demodulated signal from the RF module, decodes the ID information, validates the ID code, and transmits the code along with any appended information, such as time and date, input status, or receiving antenna identification, to the host computer system. An AI1202-1205 series reader also performs control operations specified by the user through reader commands entered at the host computer or through a terminal connected to the AUX-1 port.

An AI1202-1205 Reader can search for specified ID codes and can filter ID data according to user-programmable criteria, screening out unwanted tag ID sets. The reader’s standard 64K random access memory (RAM) memory holds approximately 4,000 ID codes without appended information and 2,000 ID codes with appended information.

RF modules can be controlled through external sensors for either single-channel or multiplex operation. The AI1202-1205 series readers support TransCore’s AR22XX and AR26XX RF modules with either single channel or dual-channel multiplex operation.

The AI1202-1205 series readers can control the operation of external equipment such as the gates or signal lights connected to the reader’s status output terminals. The reader commands allow the user to set and change output operation parameters as necessary.

AI1202-1205 Readers are mounted in a weatherproof enclosure.
Ai1202-1205 Readers

COMMUNICATIONS

Frequency Compatibility
850 - 950 MHz
2400 - 2500 MHz

RF Control
Manual/automatic

I/O Control
Input: 4 ports
Output: 4 ports

HARDWARE FEATURES

Communications Ports
Serial I/O: MAIN, AUX-1
Optional serial port: AUX-2
The AUX-1 port can be used for connection to a local printer or terminal and allows communications with system diagnostic equipment.

SOFTWARE FEATURES

Buffer Size
32K

Dual Channel Operation
Configured at the factory for multiplex (two-channel) operation. Optional single-channel operation is also available.

Protocol
Host communications may be configured with normal or error-correcting communications protocol.

POWER REQUIREMENTS

Input Voltage
110 or 220V AC selectable or 12, 24, or 72V DC depending on model ordered

Power Consumption
25 W

OTHER FEATURES

Real-time clock

PHYSICAL ATTRIBUTES

Dimensions
Size: 13.5 x 13.0 x 6.36 in. (34.3 x 33 x 16.2 cm)
Weight: 21.6 lb (9.8 kg)

Enclosure
Weatherproof NEMA-4 enclosure with locking loops that accept padlocks with a maximum 1/4 inch diameter shackle.

ENVIRONMENTAL PARAMETERS

Operating Temperature
-40°F to +167°F (-40°C to +75°C)

Vibration Tolerance
2 Grms, 5 to 500 Hz

STANDARDS

ISO and AAR Compatible
Meet criteria for hardware and firmware configuration and performance specified by the International Standardization Organization (ISO) for container identification standard and the Association of American Railroads’ (ARR) standard for automatic equipment identification.

LICENSED

Equipment License
The user is required to obtain a Part 90 site license from the FCC to operate the unit in conjunction with a RF module in the United States. Access the FCC Web site at www.wireless.fcc.gov/uls for more information.

FCC ID: FHXXXXXXX (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

Power Supply
Replacement harsh environment power supplies are available in auto-adjust 110/220V AC and fixed 12, 24, and 72V DC units.

Firmware
The reader firmware versions are available as plug-in type UVROM chip sets.

Ribbon Cable Kit
A kit is available for interconnection of reader circuit boards; it includes three ribbon cables with connectors.

Digital I/O Modules
Available in a range of AC and DC voltages, with and without manual switch

DOCUMENTATION

Ai1200 System Installation and Operations Guide
Ai1200 System Maintenance Guide
Ai1200 Reader Command List Quick Reference Guide
Ai1202-1205 Series Reader Testing