The microprocessor-controlled, dual-channel AI1200 Reader provides an operational link between objects with radio frequency (RF) tags and host information management systems. 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.

The AI1200 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. The AI1200 Reader can search for specified ID codes and can filter ID data according to user-programmable criteria, which screens out unwanted tag ID sets. The reader's standard 64K random access memory (RAM) 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 AI1200 Reader supports TransCore's AR2200- and AR2600-series RF modules with either single channel or dual-channel multiplex operation.

The AI1200 Reader can control the operation of external equipment such as 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.

The AI1200 Reader supports up to three serial ports and eight I/O control channels. It includes a real-time clock; RAM; and nonvolatile, electronically erasable programmable read-only memory (EEPROM); one main and two auxiliary serial communications ports; RS–232 communications interface; two RF channels; a built-in two-channel multiplexer; and sense input capability. The reader is mounted in a weatherproof enclosure.
AI1200 Reader

COMMUNICATIONS

Frequency Compatibility
850-950 MHz with AR22XX RF Module
2400-2500 MHz with AR26XX RF Module

RF Control
Manual/automatic

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

HARDWARE FEATURES

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

SOFTWARE FEATURES

Buffer Size
64K

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

POWER REQUIREMENTS

Input Voltage
120V or 240V AC selectable

Operating Power
+12V DC

Power Consumption
25 W

OTHER FEATURES

Real-time clock

PHYSICAL

Dimensions
Size: 13.5 x 13 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-in. diameter shackle.

ENVIRONMENTAL

Operating Temperature
-4°F to +131°F (0°C to +70°C)

Vibration Tolerance
1 G(rms) 5 to 500 Hz

STANDARDS

ISO and AAR Compatible
Meets hardware and firmware configuration and performance specified by the International Organization for Standardization’s (ISO) container identification standard and the Association of American Railroad’s standard for automatic equipment identification.

ETL Listing, UL Compliant
Compliant with the requirements of the Underwriters Laboratories (UL) Standard for Information Processing and Business Equipment (UL-1950 First Edition) and has received European Testing Laboratory (ETL) listing #A0190875050. Note: ETL listing requires that the reader unit be removed from its mounting while holes are punched or drilled in the enclosure.

LICENSING

Local regulations apply. Operation in the United States is regulated by the FCC. Contact TransCore for more information.

The reader is verified to Part 15 of the FCC rules for a Class A digital device.

OPTIONS

Power Supplies
Replacement AC and DC power supplies are available.

DOCUMENTATION

AI1200 System Installation and Operations Guide
AI1200 System Maintenance Guide
AI1200 Reader Command List Quick Reference Guide

For more information:
Call 214.461.6443 (Sales Support) • 505.856.8007 (Technical Support)