

HS900 PC-Bus Read/Write Controller

Features

- Simple Dual-Port Memory Interface to PC-Bus
- Controls up to Four HS-Series Antennas Simultaneously
- Antenna Cable Length up to 4000 Feet (1200 Meters)
- 3,000 Bytes/Second Data Transfer – Reading and Writing
- No Separate Power Supply Required
- PC-Compatible Demo Software Available

Applications

- Material Handling
- Sortation Systems
- Work-in-Progress Monitoring
- Quality Control

Use With

- HS200R-Series Tags
- HS200XL-Series Tags
- HS200LR-Series Tags
- HS500-Series Antennas

Escort Memory Systems® (EMS) offers a complete family of field-proven Read/Write Radio Frequency Identification (RFID) products and network interface modules. The system consists of Tags, Antennas and Controllers. Tags can be attached to a product or its carrier and act as an electronic identifier, job sheet, portable database or manifest. Tags are read and updated via an EMS Antenna through any non-conductive material while moving or stationary.

Technical Description

The HS900 PC-Bus Read/Write Controller is an XT-type PC expansion board which serves as the interface between a PC, XT, AT or PC-compatible personal computer and up to four HS-Series Antennas. The Antennas can be used to both read and write data from the HS-Series Read/Write Tags. The connection between the PC-Bus Controller and each Antenna is via two twisted pairs (four wires), with a maximum cable length of 4,000 feet (1200 meters). This is advantageous because the Controller portion of the RFID system is then afforded extra protection from noise that could be generated by electrical equipment positioned near the Read/Write station.

Interface between the PC and the HS900 is via 2KB dual-port RAM, which can be mapped into any available address of the PC's memory. Read/Write instructions for the HS900 are written into the dual-port RAM and read by the HS900's on-board microprocessor. Once the Tag is read, the collected data is returned to the PC via the same dual-port.

This memory-mapped nature of the HS900 makes interfacing fast and easy. Sample interface routines are available in the popular C programming language.

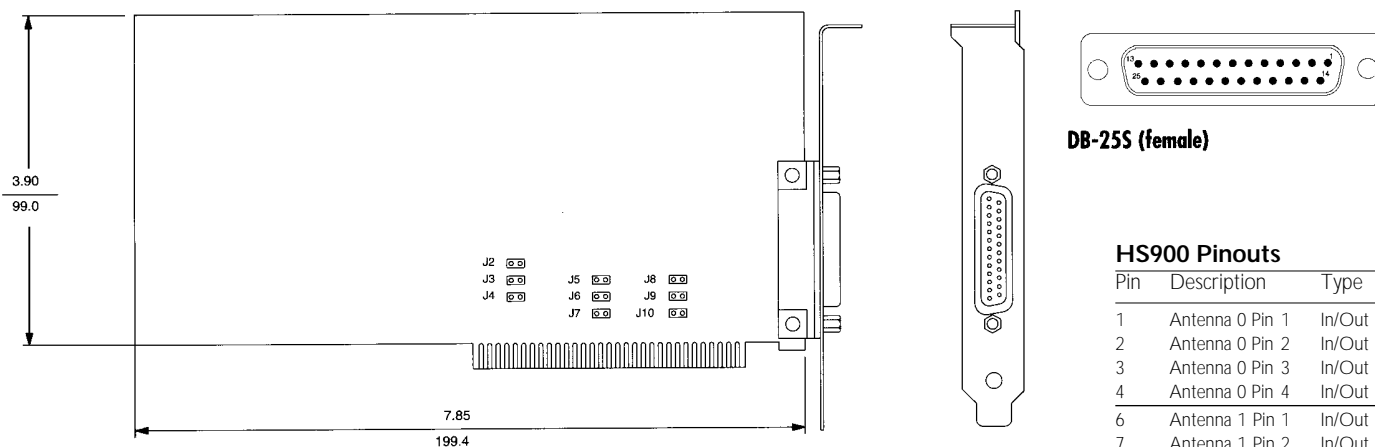
The HS900 is manufactured under the quality standards which have made EMS the industry leader in network interface modules.

**CONTROLS
UP TO FOUR
HS-SERIES
ANTENNAS
AT THE
SAME TIME**

HS900 PC-Bus Read/Write Controller

Electrical	Supply Voltage Maximum Current	±5VDC (Obtain directly from PC-Bus) 500mA
Interface With Antenna	Maximum Cable Length	4000ft. (1200m)
Communications With Host	Compatibility Interface	PC, XT, AT and 100% PC-Compatible Dual Port RAM, Selectively-Addressable within PC Address Space
Mechanical Specifications	Dimensions (W x H) Connector	3.90 x 7.85in. (100 x 199mm) DB-25S for All External Connections
Environment	Operating Temperatures Storage Temperature Humidity Protection Class	32° to 120°F (0° to 49°C) -40° to 185°F (-40° to 85°C) 95% Non-Condensing NEMA 1 (IP30)

Mechanical Dimensions



DB-25S (female)

HS900 Pinouts

Pin	Description	Type
1	Antenna 0 Pin 1	In/Out
2	Antenna 0 Pin 2	In/Out
3	Antenna 0 Pin 3	In/Out
4	Antenna 0 Pin 4	In/Out
6	Antenna 1 Pin 1	In/Out
7	Antenna 1 Pin 2	In/Out
8	Antenna 1 Pin 3	In/Out
9	Antenna 1 Pin 4	In/Out
11	Antenna 2 Pin 1	In/Out
12	Antenna 2 Pin 2	In/Out
13	Antenna 2 Pin 3	In/Out
14	Antenna 2 Pin 4	In/Out
16	Antenna 3 Pin 1	In/Out
17	Antenna 3 Pin 2	In/Out
18	Antenna 3 Pin 3	In/Out
19	Antenna 3 Pin 4	In/Out

Available Models

Model	Description
HS900-4	PC-Bus Controller for Four Antennas