HS510
Long-Range
Read/Write Antenna

Features
- Up to 29 Inches Read/Write Range
- 3000 Bytes/Second Data Transfer Speed – Reading and Writing
- Epoxy Encapsulated
- Unaffected by Paint, Dust, Dirt and Solvents
- High Immunity to Metal
- Uses Safe Low-Frequency Radio Waves

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

Use With
- HS200LR-Series Tags
- HS850B Serial Eurocard Controller
- HS880B-Series Read/Write Controllers
- HS900 PC-Bus Read/Write Controller
- CM12 DeviceNet Module
- CM21 InterBus-S Module
- CM30-Series Profibus Modules
- CM40-Series Modbus Plus Modules
- CM52 Remote I/O Module
- CM900 / CM1000
- CM1746 RFID Module

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 HS510 Long-Range Read/Write Antenna connected to an Escort Memory Systems Controller provides a very convenient interface between a host computer or programmable Controller and the data in EMS Long-Range Tags.

The HS510 Antenna contains all the circuitry necessary to convert the digital signals received from the Controller to high speed RF signals from the Tags, and subsequently, convert the RF signals from the Tags back into digital signals for the Controller.

The distance from the Controller to the Antenna can be up to 4,000 feet. 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. Connection to the Controller is via an 8-pin circular connector. Antennas can be replaced on the line without changing any wiring.

UP TO 29 INCHES READ/WRITE RANGE

The Antenna is equipped with a two-color status LED, indicating when power is present and the Antenna is or is not transmitting.

The HS510 is a solid state device, without moving parts or mechanical switches, and configuration is not required prior to installation. It has a metal backplate which helps to distribute stress from the mounting bolts and greatly increases immunity to additional metal in the Read/Write field.

HS510 Long-Range Read/Write Antenna

| Electrical | Supply Voltage | 20-26VDC |
| | Current Consumption | 500mA Maximum |

| RF Interface | Data Transfer Rate | 3000 Bytes/Second |

| Interface with Controller | Maximum Cable Length | 4000ft. (1200m) |

Mechanical Specifications	Dimensions (W x H x D)	31 x 3.0 x 2.0in. (787 x 76 x 51mm)
	Weight	9.5lbs (4.3kg)
	Enclosure	ABS Shell, Epoxy Encapsulated
	Cable	User Supplied
	Connector	8-Pin Plastic Circular
	Indicators	Power/Transmit LED

Environment	Operating Temperature	14° to 120°F (-10° to 49°C)
	Storage Temperature	-40° to 185°F (-40° to 85°C)
	Humidity	Water-Resistant
	Protection Class	NEMA 4 (IP66)

Mechanical Dimensions
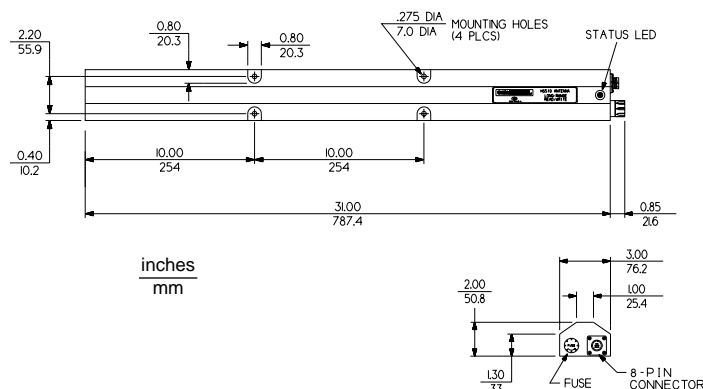
inches / mm

RF Field and Read/Write Ranges

HS510 Long-Range Read/Write Antenna

Reading & Writing Ranges to HS200-Series Read/Write Tags

	HS200R	HS200XL	HS200LR
Typical Range (Y) (inches/mm)*	**	**	29.00/737
Guaranteed Operating Range (X)	**	**	23.23/590

* Proximity to metal, CRT devices and other sources of electromagnetic radiation
  may affect the range of the Antenna.

** Not recommended.
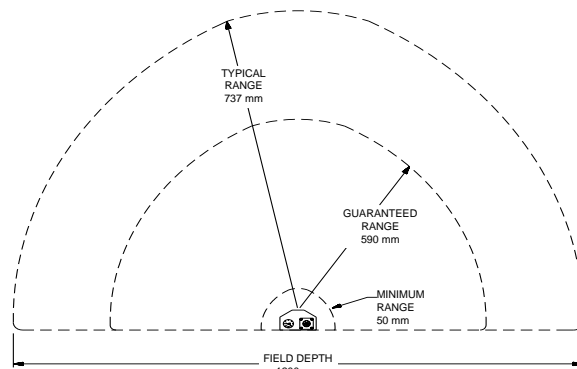
RF Field of HS510 when used with HS200LR-Series Tag.

Available Models

Model	Description
HS510	Long-Range Read/Write Antenna

Accessories

Model	Description
68-5001	Crimping Tool for 8-Pin Circular Connector (Amp 603547-1)
10-7026	Antenna Connector Kit for HS510 (Furnished with HS510, but also Available as a Spare Part)