

Model 195Es Case Specifications

LED Indicators	
Power On/Off	Receiver On/Off
Carrier Detect On/Off	Transmitter On/Off
Link Status On/Off	

I/O Connectors	
Ethernet 10/100Base T (Port 1)	RJ-45 Female
Ethernet 10/100Base T (Port 2)	RJ-45 Female
RS-232C Port (2,400 to 115.2K baud)	RJ-45 Female
RS-232C Programming Port (38.4 K baud)	RJ-45 Female
Antenna Input/Output	TNC Reverse Polarity Female
Remote Input Power	Power Over Ethernet Cable
Direct Input Power	Optional, Header Screw Connector

Transmitter	
Frequency of Operation	902 to 928 MHz Software Selectable
RF Data Rates	200 Kbps
Tx Output Power	1 Watt
RF Output Impedance	50 ohms

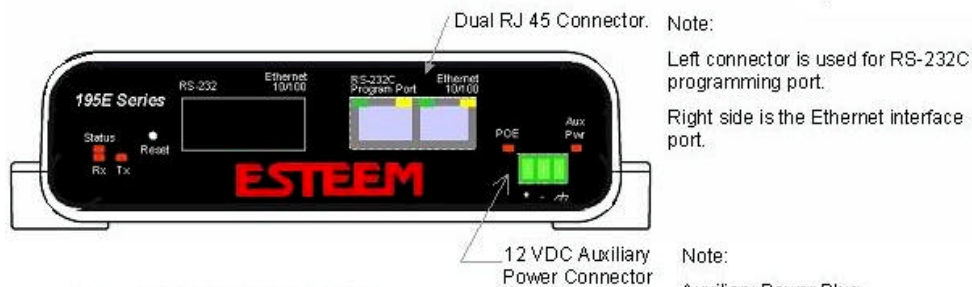
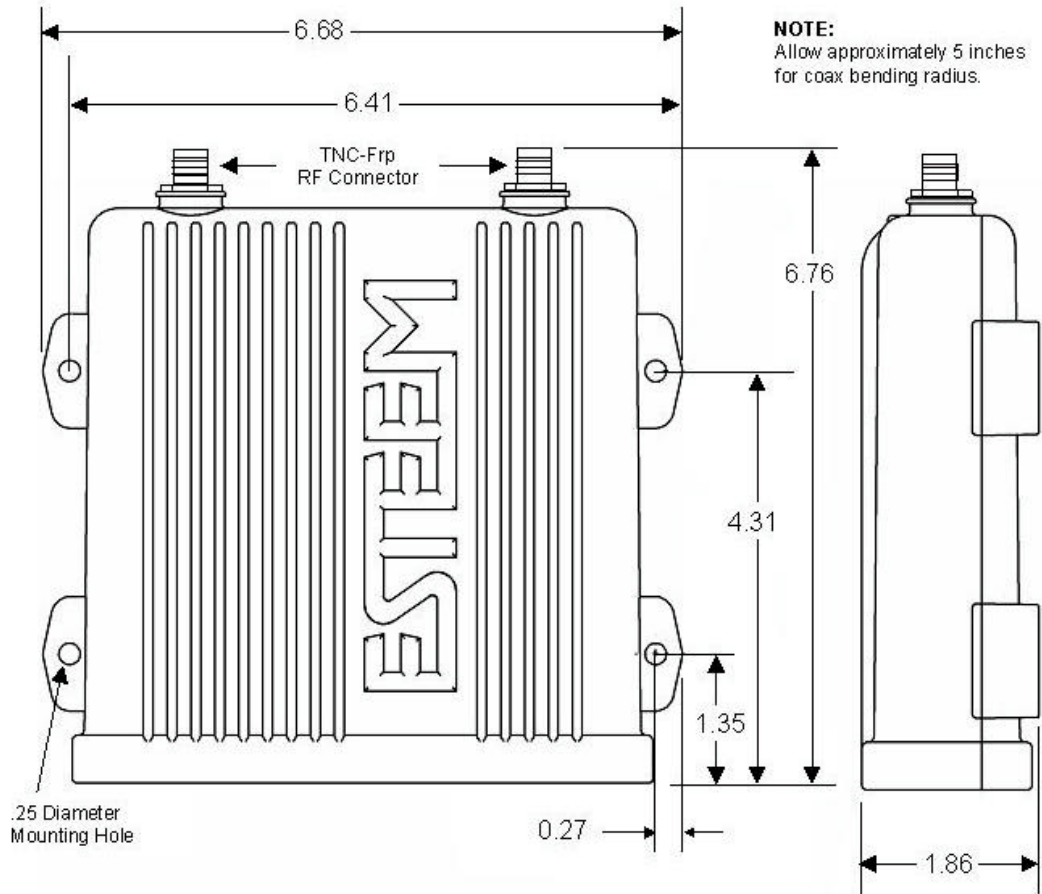
Receiver	
Rx Sensitivity @ Frame Error Rate <10%	-98 dBm @ 200 Kbps

Power	
Power over Ethernet	IEEE 802.3af Standard Power Supply, 48 VDC @ 13 Watts
Power Connector on Unit	10 to 16 VDC
Receive	220 ma @ 12 VDC
Transmit	1000 ma @ 12 VDC

Case	
Dimensions	1.9 in. H x 6.7 in. W x 6.2 in. L
Weight	1.25 lbs.
Outdoor Pole Mounting Kit	Optional, EST P/N 195PM

Other	
Warranty	1 Year
Temperature Range	-30° to +60° C
Humidity	95% Non-condensing
FCC Type Acceptance	Pending
Industry Canada Type Acceptance	Pending

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Note: All dimensions are in inches.

Dual RJ 45 Connector. Note:
 Left connector is used for RS-232C programming port.
 Right side is the Ethernet interface port.

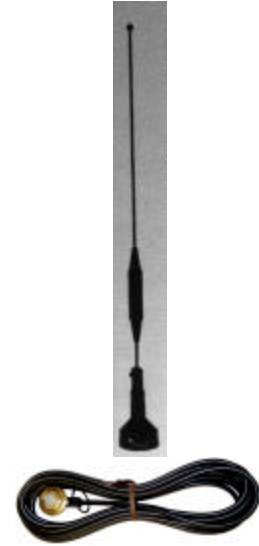
12 VDC Auxiliary Power Connector Note:
 Auxiliary Power Plug with screw termination for wiring is available.

Antenna Specifications

Model No:	AA191s
Antenna Type:	Omni-Directional, Permanent Vehicle Mount
Applications:	Direct mount
Frequency:	896 to 940 MHz
Polarization:	Vertical
Impedance:	50 ohms
Gain:	5 dB
VSWR:	< 1.5 to 1
Front to Back Ratio:	n/a
Horizontal Beamwidth:	n/a
Vertical Beamwidth:	n/a
Antenna Material:	Molded Polymer
Mounting Hardware:	Included
Antenna Connector:	TNC-R Male
Antenna Envelope:	32 in. length
Weight:	<1 lbs.

Caution

Omni-directional antenna should not be located within 23 cm of personnel.



Model AA191s

Model:	AA20DMEs
Applications:	Model 195Es direct case mount
Antenna Type:	Omni-Directional, Sleeve dipole
Frequency:	902 to 928 MHz
Polarization:	Vertical
Impedance:	50 ohms
Gain:	2 dBi (3 dBd)
VSWR:	< 2:1
Power:	10 W
Front To Back Ratio:	n/a
Horizontal Beamwidth:	n/a
Vertical Beamwidth:	60 degrees
Antenna Material:	Polyurethane Plastic Radome
Recommended Mounting Hardware:	n/a
Antenna Connector:	TNC-R Male
Flexibility:	+/- 20 °
Antenna Envelope:	8.8 in. length by .51 in. width
Temperature:	-20 to +65 C°
Weight:	35 grams

Caution

Omni-directional antenna should not be located within 23 cm of personnel.



Model AA20DMEs

Antenna Specifications

Model No:	AA20Es900
Antenna Type:	Omni Directional, DC Grounded
Applications:	Fixed base
Frequency:	902 to 928 MHz
Polarization:	Vertical
Impedance:	50 ohms
Gain:	7 dBi (5dBd)
VSWR:	1.5:1 Typical
Front to Back Ratio:	n/a
Horizontal Beamwidth:	n/a
Vertical Beamwidth:	22 degrees @ 1/2 power
Antenna Material:	Brass radiator, UV inhibited fiberglass enclosed
Mounting Hardware:	Base to Mast, Supplied.
Maximum Power Input:	150 Watts
Wind Survival:	100 mph
Bending Moment:	14.2 ft-lbs. @ 100 mph
Antenna Connector:	TNC-R Male with 36in. pig-tail.
Antenna Envelope:	48 in. L x 1-5/16 in. Dia.
Weight:	1.75 lbs.

Caution

To comply with the FCC exposure compliance requirements, a separation distance of at least 23 cm must be maintained between the antenna and all persons.



Mounting Bracket



Model AA20Eg

Antenna Specifications

Model No:	AA203Es900
Antenna Type:	Directional, DC grounded
Applications:	Fixed base.
Frequency:	902 to 928 MHz
Polarization:	Vertical or Horizontal
Impedance:	50 ohms
Gain:	7 dBi (5 dBd)
VSWR:	< 1.5:1 Nominal
Front to Back Ratio:	> 16 dB
Horizontal Beamwidth:	130 degrees @ ½ power
Vertical Beamwidth:	70 degrees @ ½ power
Antenna Material:	Aluminum
Mounting Hardware:	Heavy duty U bolts for mounting up to 2.0 in. pipe (included).
Antenna Connector:	TNC-R Male with 2 ft. pigtail with ESTeem weatherproof boot.
Maximum Power Input:	50 Watts
Antenna Envelope:	1.1 ft. length by 6 in. width
Windload (RWV):	150 mph
Wind Surface Area:	.11 ft ²
Weight:	1 lbs.

Caution

To comply with the FCC exposure compliance requirements, a separation distance of at least 23 cm must be maintained between the antenna and all persons.



Model AA203Eg