

Wireless High Speed Ethernet and Serial Ports

The ESTeem Model 195Eg is designed for the rigors of the Industrial, Public Safety, and Federal markets, is the next generation wireless modem with *two Ethernet ports* and *one independent Serial RS-232C data port*. The Model 195Eg provides wireless networking with an RF data rate of *1 to 54 Mbps*, at a nominal 5 to 10+ mile range depending on the antenna used. Now you have greater bandwidth for all your control, video, and VoIP needs, on one radio channel. Wireless networks over large geographical areas become a reality using the 195Eg *Access Point Mode* with the *Self-Healing MESH* feature. The Model 195Eg has a user enabled 802.11b/g protocol for communication to Clients' laptops, PDA's and mobile tablets. 195Eg products have a *Client Mode* so it can be used in mobile applications under a 195Eg radio canopy.



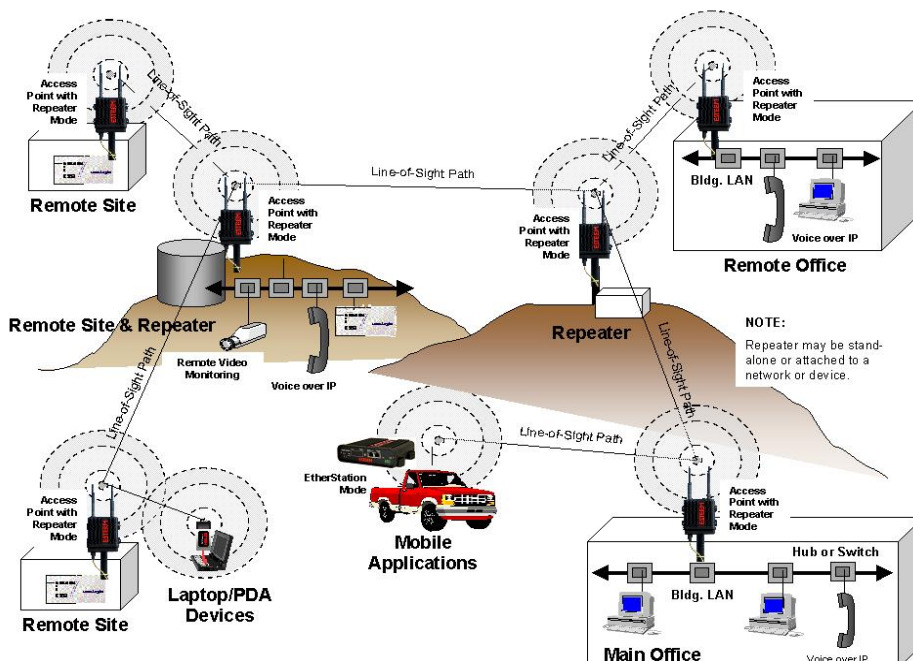
Frequency	RF Data Rate
2.4 GHz Unlicensed	1 to 54 Mbps

Model 195Eg Reduces Site Costs

- **Outdoor case design.** The new NEMA 4 case design and weatherproofing kit allows the unit to be indoor or outdoor pole mounted in harsh environments. This feature eliminates the enclosure costs needed with other radios.
- **Eliminates costly RF feed lines.** Direct pole mounting eliminates feedline cost and high signal losses.
- **Lower installation costs.** Simple pole mounting saves installation time and expense.

Software Features

- **High Security AES Encryption.** The 195Eg uses the high-security 128-bit AES-CCMP compatible with both IEEE 802.11i and WPA-2 encryption. This level of security is required in most municipal, public safety and federal applications.
- **Simple Network Management Protocol (SNMP).** SNMP open protocol support is standard in the 195E Series that is used for critical network diagnostics and management.
- **Rapid Spanning Tree Protocol (RSTP – IEEE 802.1d).** The Rapid Spanning Tree Protocol will allow faster recovery times in the ESTeem Mesh networks.
- **Enhanced Network Operation.** The 195E Series includes support for VLAN pass-through and IGMP Snooping to support enhanced network functionality.



Features

- MESHing Self Healing Network Architecture
- 5 to 10+ Mile Nominal Range
- Industrial Hardened Case
- Direct Outdoor Pole Mountable
- Extended Temperature Specifications
- Power over Ethernet Cable (PoE)
- Dual Ethernet Ports
- Serial RS-232 Communications Port

Modes of Operation

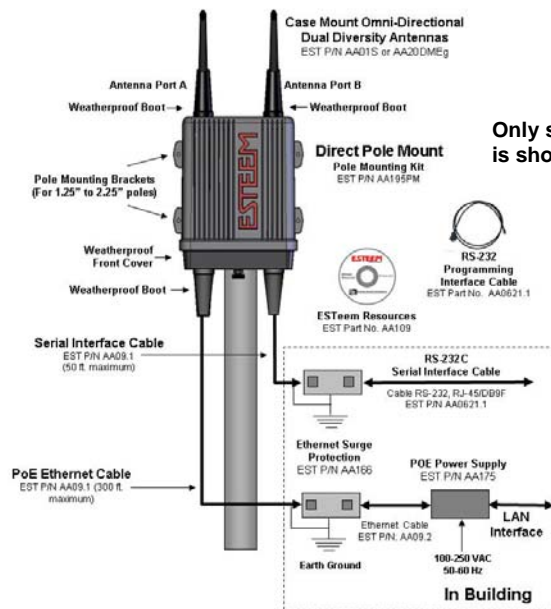
- Ethernet Bridge Mode
 - Point-to-Point
 - Point-to-Multipoint
 - All Bridges can be Repeaters Available in all Access Point and Bridging Modes
- Access Point (AP) AP/Bridge, Router and Masquerade
- Client Modes (Mobile)
 - EtherStation
 - Station Router
 - Station Masquerade

Security

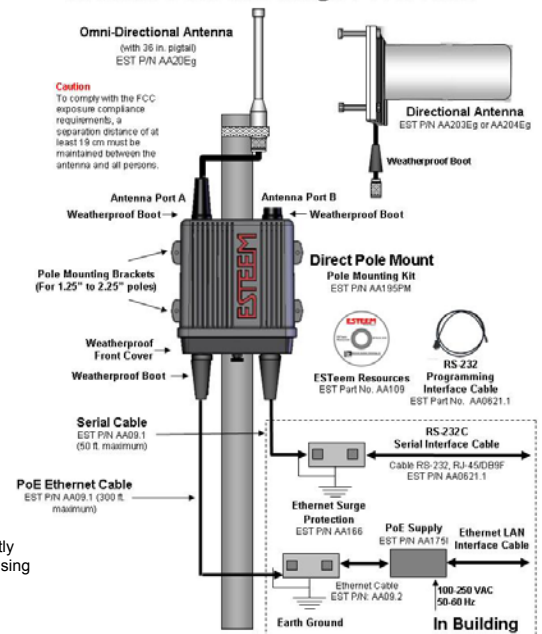
- AES Encryption (CCMP)
- 802.11i Compatible
- WPA2 Compatible
- Temporal Key Integrity Protocol (TKIP)
- WPA Enterprise
- WPA Pre Shared Key (PSK) Compatible
- 128/64 Bit WEP Encryption
- Access Control List (ACL)

ESTeem 195Eg Specifications	
Transmitter/Receiver	
Frequency of Operation (Software Selectable)	2.412 to 2.462 GHz (11-channels)
RF Data Rate	1, 2, 5.5, 6, 9, 11,12, 18, 24, 36, 48, and 54 Mbps (12 steps)
Tx Output Power (Software Selectable)	250, 500, 700, and 1000 mW (Pk) (4-levels)
Tx Output Impedance	50 ohms
Rx Sensitivity	-89 to -68 dBm
FCC Type Acceptance	ENPESTEEM195EG-1
Industry Canada Type Acceptance	2163A-195EG
LED Indicators	Power (On/Off) - Carrier Detect (On/Off) - Transmitter (On/Off) - Receiver (On/Off)
Power Requirements	
Receive	320 ma @ 12 VDC
Transmit	1000 ma @ 12 VDC
PoE Power Supply	(IEEE 802.3af, 13 watts) (opt)
External Power Input	10 to 28 VDC @ 1000 ma
Input/Output Connectors	
Ethernet Port 1 (10/100)	RJ-45 Female
Ethernet Port 2 (10/100)	RJ-45 Female
802.11 Compatibility	802.11b/g
RS-232C Comm Port (2,400 to 115.2 K baud)	RJ-45 Female
RS-232C Programming Port (38,400, N, 8, 1)	RJ-45 Female
Antenna Input/Outputs	TNC Reverse Female
External DC Input Power	Mini-Combicon, 3 pin female
Case	
Temperature Range	-30° to +60° C
Humidity	95% Non-condensing
Dimensions	1.9 in. H x 6.7 in. W x 6.2 in. L
Weight	1.25 lbs.
Product Warranty	1 Year
Other	
Outdoor Pole Mt. Kit	AA195PM (opt)
PoE Power Supply	AA175 (opt)
External DC Input Power Connector	AA195PP (opt)

**Model 195Eg
Direct Mount Antennas
w/Serial Port and Surge Protection**



**Model 195Eg
External Antenna
w/Serial Port and Surge Protection**



ELECTRONIC SYSTEMS TECHNOLOGY, INC.

415 North Quay Street • Kennewick, WA 99336
Phone (509) 735-9092 • Fax (509) 783-5475

Specifications subject to change without notice

www.esteem.com
Revised: 13 April 2012