



# 195 M Narrowband

FCC-Licensed Wireless Solutions

## Core Values & Key Features

### FREQUENCY FLEXIBILITY

Offered in 150-174MHz for Exclusive Use and Maximum Range to support your application strategies.



- 150-174MHz
- 12.5 Kbps
- MURS Band Channel options (Unlicensed Use)

### ADVANCED SECURITY

Enhanced network security featuring AES-128 encryption, stringent access controls.



- AES-128 Encryption
- Proprietary Communication Links
- Network Isolation Strategies

### LONG RANGE VARIED SETUPS

Experience RS-232, RS-422, RS-485 Serial or Ethernet Connectivity at maximum range for exceptional outdoor coverage.



- Allen Bradley DF1, Modbus RTU/ASCII, Opto22, DNPv3, and Transparent Protocols
- Versatile Mounting: Cabinet or DIN Rail
- Master, Repeater or Remote Modes of Operation

### DEMONSTRATED RELIABILITY

Proven, robust technology delivers real-time data access deployed to support your reliability strategies.



- Own your Reliability
- User Defined Communication Routes
- Easy Utility based Configuration

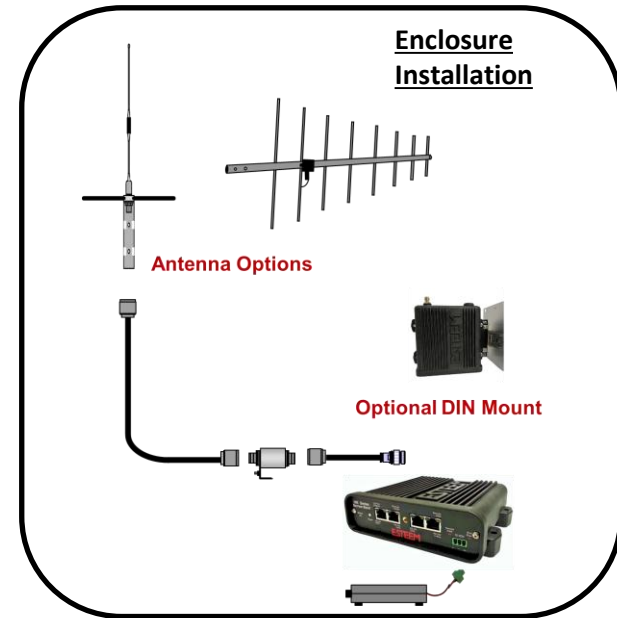
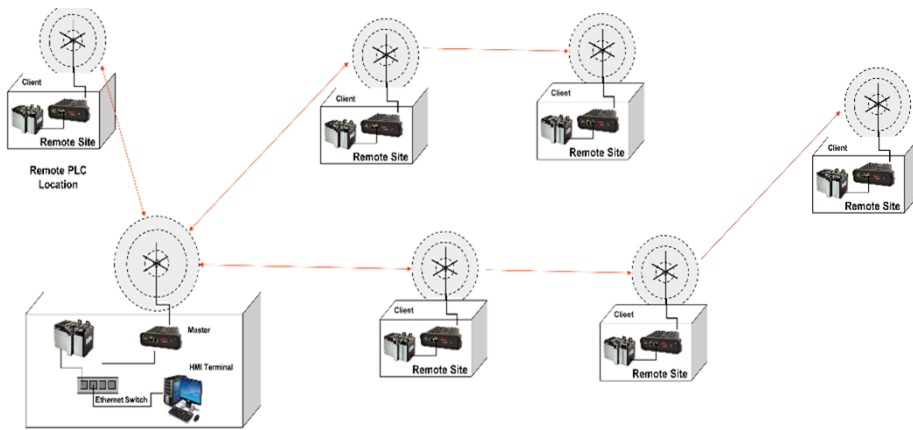
### NETWORK VISIBILITY LONGEVITY

Proactive real-time monitoring via ESTeem Utility and/or ModbusTCP enhances wireless network efficiency and security.



- Scalable, Adaptable Network Solutions
- Built-in Full Feature Spectrum Analyzer
- ESTeem 192M/MHP Backward Compatibility





## 195M Narrowband Specifications

-Transmitter/Receiver-	195M
Frequency of Operation (Software Selectable)	150 - 174 MHz
Frequency Stability, -30C to +60C	+/- 2.5ppm
Channel Spacing	6.25 & 12.5kHz
RF Data Rate	(4.8Kbps @ 6.25kHz) & (12.5Kbps @ 12kHz)
Tx Output Power (Software Adjustable)	0.5 - 4 Watts
Tx Output Impedance	50 ohms
Rx Sensitivity	-110 dBm
FCC ID	ENPESTEEM195M
Industry Canada Type Acceptance	2163 192 195M
LED Indicators	Power (On/Off), Status Multi-Color LED (On/Off), Serial & Ethernet Activity Link (On/Off)
<b>-Data Packet Information-</b>	
Radio Addressing	1-254 Total Units, Supports up to 3 repeaters between end-points
Data Packet Size	1-1500 Bytes
Serial Data Interface Buffer Size	8KB TX/RX
<b>-Power Requirements-</b>	
Receive without Ethernet Link	120ma @ 12VDC
Receive with Ethernet Link	160ma @ 12VDC
Transmit @ 2 Watts RF Output	1350ma @ 12VDC
Transmit @ 4 Watts RF Output	1540ma @ 12VDC
External DC Power Input	11 - 15VDC @ 2A
Input/Output Connectors	
Ethernet Port (10/100)	RJ-45 Female
Serial Data Interfaces (One of four selectable)	RJ-45 Female
Antenna Input/Output	TNC Female
External DC Input Connector	Mini-Combicon, 3-pin Female
<b>-Protocols-</b>	
Serial Data Interface, Master PLC mode protocols supported by auto-digi-repeater function	Allen Bradley DF1, Modbus RTU/ASCII, Opto22, DNPv3, and Transparent
Ethernet Interface protocols supported for remote access via ARP proxy on Master Gateway Unit	Modbus TCP, ICMP Echo (Ping), Remote Configuration
Ethernet Interface protocols (direct access only)	Telnet, IP Configuration, Firmware upgrades
<b>-Mechanical / Environmental-</b>	
Temperature Range	-30° to 60° C
Humidity	95% Non-condensing
Dimensions	1.9"H x 6.7"W x 6.2"L
Weight	1.25 lbs
Product Warranty	1 Year
<b>-Options-</b>	
Mounting	DIN-Mount
RJ-45 To DB9 Serial Adaptor	AA0621.1
RJ-45 To Terminal Block Adaptor	AA066
Antennas/Surge Protectors/Cables, etc.	Contact factory for options
Security	AES-128