

## 195M/Radius+ Solution

### Radius+ Smart External Amplifier

The ESTeem Radius+/195M system combines an intelligent, self-monitoring Radius+ amplifier with the ESTeem Model 195M, increasing the output power of the 195M to 25 Watts for long distance, outdoor applications. The amplifier requires no additional programming for operation but has the ability to monitor forward power, reflected power and internal temperature through either an Ethernet or serial (RS-232) interface.

- Ethernet and serial interfaces
- Secure AES Encryption
- Simple configuration
- Extended 20+ Mile range
- 150-174 Mhz
- PLC Protocol Emulation - The 195M Narrowband has protocol drivers for most major PLC manufacturers. This protocol emulation allows transparent operation of the controllers, but allows the use of any 195M in the network to act as a repeater
- Multiple Modes of Operation - Same device can be used for master, repeater and/or remote locations enabling superior network flexibility and scalability
- Spectrum Analyzer - The 195M contains a full feature spectrum analyzer



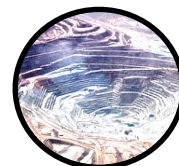
The ESTeem 195M Narrowband is the perfect radio solution designed for the rigors and security requirements of the Industrial, Public Safety, and Federal markets when the 150-174 Mhz VHF frequencies are needed for terrain coverage. The ESTeem 195M provides the user Ethernet, Serial RS-232C, RS-422, RS485 and 4-Channel Sensor Interface in a single wireless modem. The Model 195M is a narrowband compliant licensed radio with downward compatibility to the ESTeem Model 192M/MHP series over distances greater than 10 miles in high noise environments depending on the antenna used. Wireless networks over large geographical areas can be a reality using the internal **Digi-Repeating** feature making all remote locations possible repeater sites.



Water/Wastewater



Oil & Gas

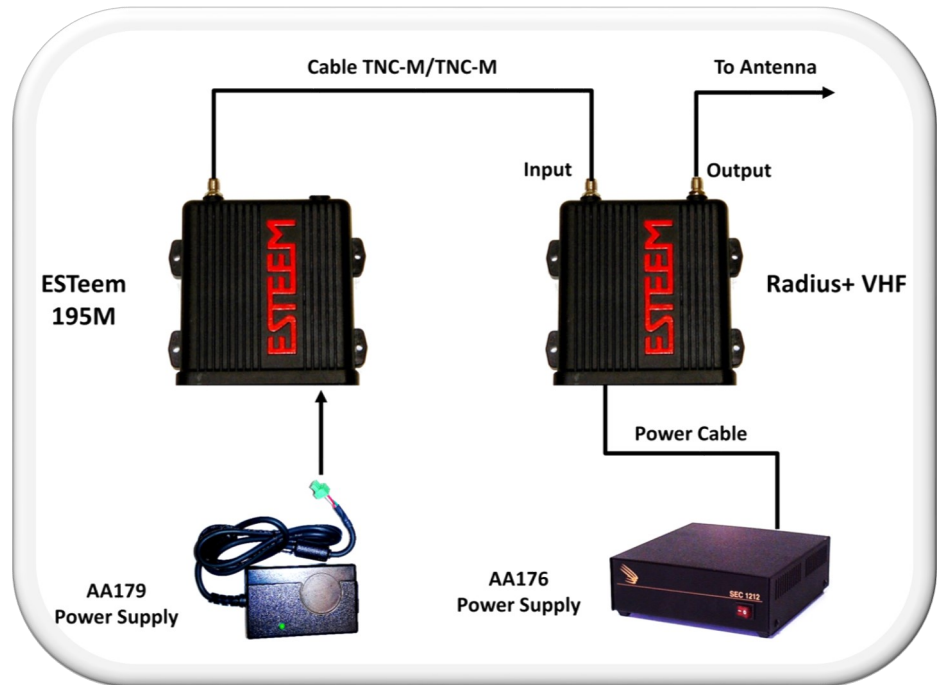
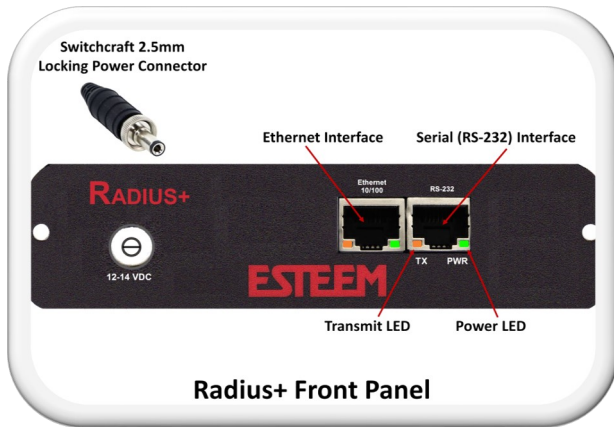


Mining



Power & Energy

# ESTeem 195M/Radius+ Solution



Radius Plus VHF Specifications	
<b>Transmitter/Receiver</b>	
Frequency of Operation	150 to 174 MHz
Tx Output Power (Maximum)	30 Watts
Tx Output Impedance	50 ohms
Rx Insertion Loss	0.7dB
FCC ID	ENPRADPVHF
LED Indicators	Power, Transmit, Ethernet Activity / Link
<b>Power Requirements</b>	
Receive	90 mA @ 13.8 VDC
Transmit @ 30 Watts RF Output	4.9A @ 13.8 VDC
External DC Power Input	12 to 14 VDC
External DC Power Supply	AA176
<b>Input/Output Connectors</b>	
Ethernet Port (10/100)	RJ-45 Female
Serial Data Interface (RS-232)	9,600 Baud
External DC Input Power	Switchcraft, 2.5mm ID, 5.5mm OD
<b>Mechanical / Environmental</b>	
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