

### ESTeem TCP Proxy

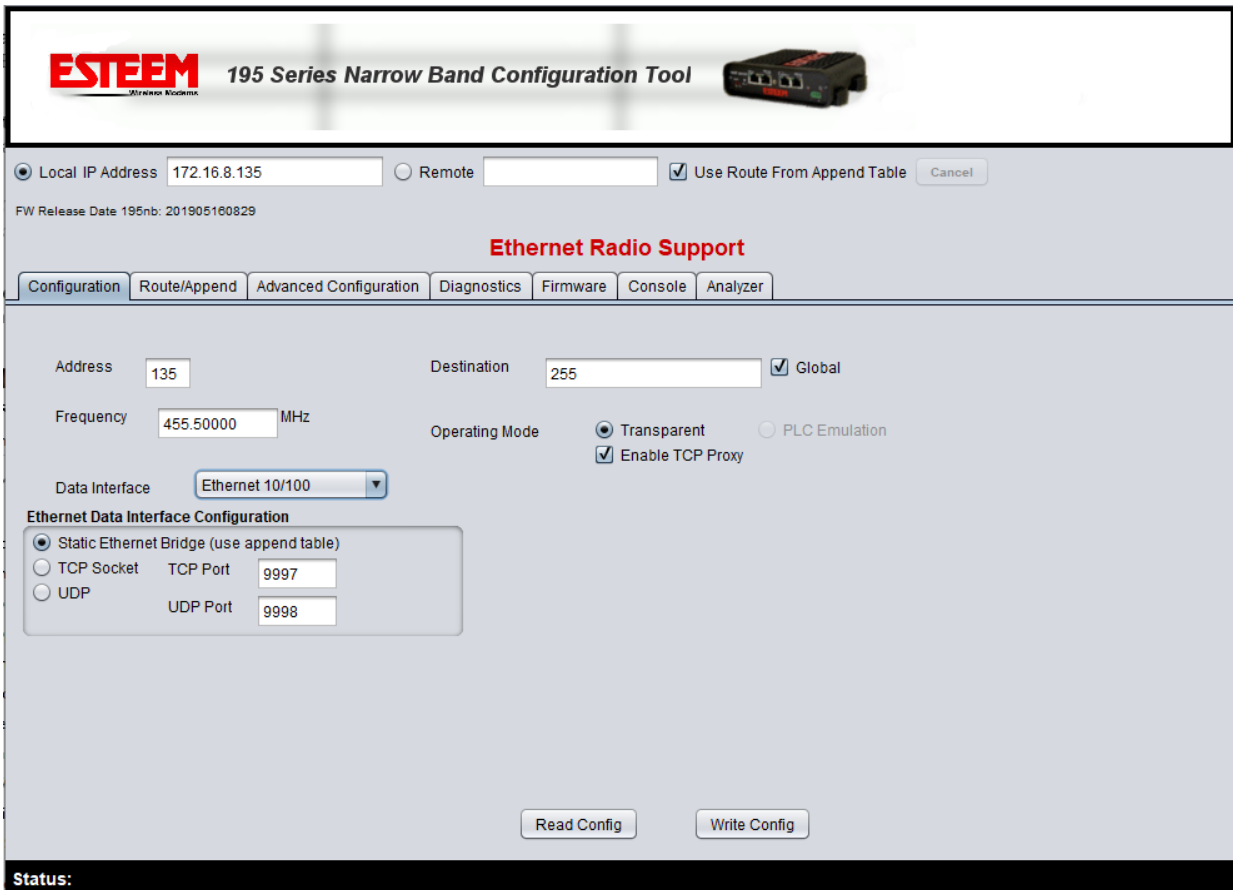
When utilizing EthernetIP based Explicit messaging, the CompactLogix, ControlLogix and Micrologix controllers use TCP socket “Keep Alive” message exchanges in addition to the actual messaging to determine and confirm the health of the TCP socket connection.

In an FCC licensed narrowband network with achievable data rates limited to 12.5 Kbps, the ESTeem 195 Narrowband Modems must also transmit these PLC generated packets which further limits the amount of network bandwidth available for your actual messaging. Once the network traffic exceeds the available bandwidth, the strict PLC message timing requirements cannot be met and errors occur.

To alleviate the excessive network traffic (specifically the Keep Alives) and open up more of the available limited bandwidth for the actual messaging, ESTeem has implemented a TCP Proxy service to acknowledge (ACK) the Keep alive packets. This TCP proxy can be configured on both the Configuration and Advanced Configuration tabs:

### Configuration Tab

To enable the TCP Proxy in the radio, verify the firmware version is optimized for Ethernet Radio Support (version 201905160829) and check the “Enable TCP Proxy” checkbox (Figure 1) and press the Write Config button.



The screenshot displays the 'ESTeem 195 Series Narrow Band Configuration Tool' interface. At the top, there is a header with the ESTeem logo and a product image. Below the header, the 'Local IP Address' is set to 172.16.8.135, and the 'Use Route From Append Table' checkbox is checked. The 'FW Release Date' is 195nb: 201905160829. The main section is titled 'Ethernet Radio Support' and contains several tabs: Configuration, Route/Append, Advanced Configuration, Diagnostics, Firmware, Console, and Analyzer. The 'Configuration' tab is active. It shows the following settings: Address: 135, Destination: 255, Global: checked, Frequency: 455.50000 MHz, Operating Mode: Transparent (selected), Enable TCP Proxy: checked. Under 'Ethernet Data Interface Configuration', 'Static Ethernet Bridge (use append table)' is selected. Other options include 'TCP Socket' (TCP Port: 9997) and 'UDP' (UDP Port: 9998). At the bottom, there are 'Read Config' and 'Write Config' buttons. A 'Status:' label is visible at the very bottom left.

Figure 1: Programming with Configuration Tab

### Advanced Configuration Tab

To enable the TCP Proxy in the radio, verify the firmware version is optimized for Ethernet Radio Support (version 201905160829) and select the Advanced Configuration tab (Figure 2).

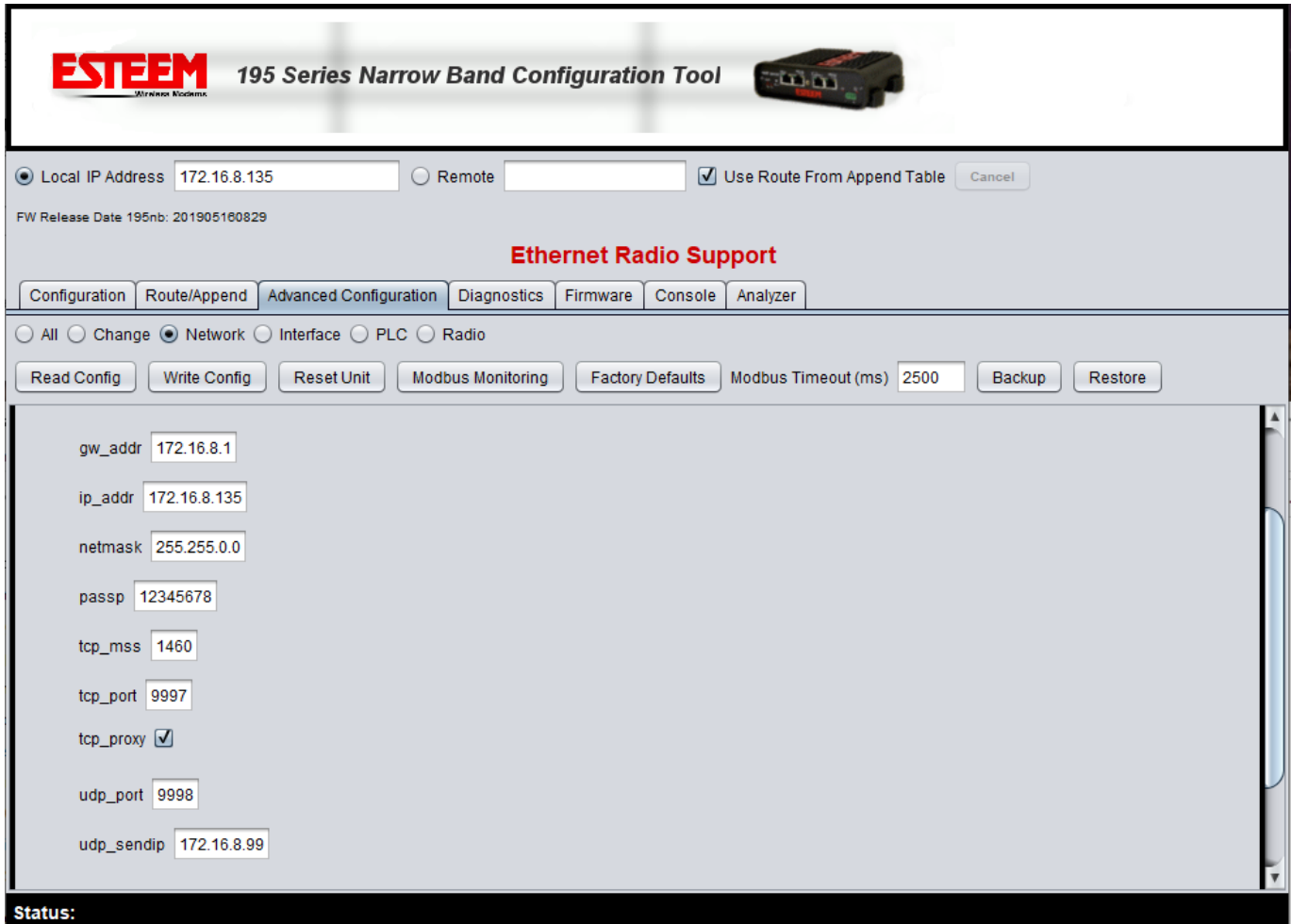


Figure 2: Advanced Configuration Tab

### To configure the tcp proxy service :

1. Select Advanced Configuration Tab
2. Select Network radial
3. Press **Read Config** button
4. Locate and check the tcp\_proxy box.
5. Press **Write Config** button

Once it has been appropriately configured, click on the “Write Config” and return ESTeem to normal operation. This must be configured at all locations.