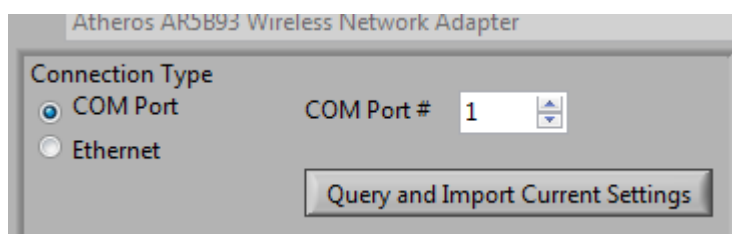


Avcom Ethernet Troubleshooting
Updated 23May12– David Wilbon

If you are having problems with your AVCOM ethernet connection but using the GUI Configure>Ethernet Tool and *reading and following the GUI User Guide carefully* does not solve the problem, you now need to look at all of the ethernet controller parameters. Because of the large number of parameters that may be changed using the Lantronix Device Server Configuration Manager we at Avcom do not recommend this method as the primary configuration method. Enter the analyzer's IP address into a web browser. At the User/password prompt leave both blank.

If you do not know the IP address or the IP address is not compatible with your network then you need to configure the analyzer's Ethernet controller using a serial or USB connection. First use the GUI's Configure>Ethernet and select COM Port under Connection Type. Power OFF the analyzer, select Query and Import, then power ON the analyzer. If this does not work go to Page 5 of this document for instructions on using Hyperterminal or PuTTY terminal programs.



Sometimes people change multiple parameters that should not have been changed. In this case selecting Apply Factory Defaults from within the Lantronix XPort Device Server web page usually restores operation.

NOTE – After making changes, to save settings first select OK at the bottom of the page then select APPLY SETTINGS.

You may need to close your browser and reopen the Device Server Configuration Manager to verify that the changes have been applied.

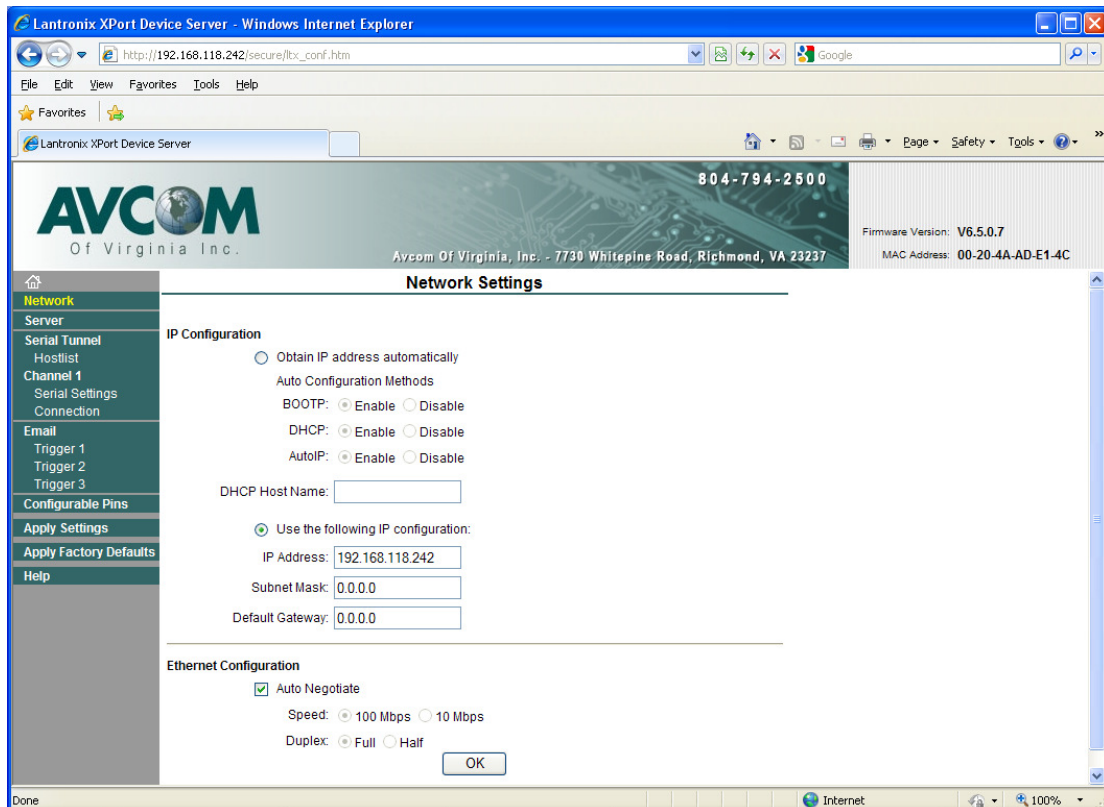
The most common problem is users changing baud rate to an incompatible value. An incorrect setting will prevent the GUI from communicating with the analyzer *but won't prevent pinging the analyzer's IP.*

RSA models with –SBS, -CLM, -BMS, DRSA, or -TRSA option require 230400 baud.

All others require 115200 baud.

All PSA and MSA products require 115200 baud.

Here are some screen shots of the AVCOM ethernet controller configuration web pages with Avcom factory default settings:



Lantronix XPort Device Server - Microsoft Internet Explorer

Address: http://192.168.1.245/secure/tx_conf.htm

AVCOM
Of Virginia Inc. 804-794-2500

Avcom Of Virginia, Inc. - 7730 Whitepine Road, Richmond, VA 23237

Firmware Version: V6.5.0.7
MAC Address: 00-20-4A-AD-E1-4C

Server Settings

Server Configuration

Telnet Password:

Retype Password:

Advanced

ARP Cache Timeout (secs):

TCP Keepalive (secs):

Monitor Mode @ Bootup: Enable Disable

CPU Performance Mode: Regular High

HTTP Server Port:

MTU Size:

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MAC Address: 00-20-4A-AD-E1-4C

Hostlist Settings

Retry Settings

Retry Counter: Retry Timeout:

Host Information

No.	Host Address	Port	No.	Host Address	Port
1	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>	2	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>
3	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>	4	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>
5	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>	6	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>
7	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>	8	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>
9	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>	10	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>
11	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>	12	<input type="text" value="0.0.0.0"/>	<input type="text" value="0"/>

Lantronix XPort Device Server - Microsoft Internet Explorer

Address: http://192.168.1.245/secure/tx_conf.htm

AVCOM
Of Virginia Inc. 804-794-2500

Firmware Version: V6.5.0.7
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Serial Settings

Disable Serial Port

Channel 1

Port Settings

Protocol: RS232 Flow Control: None
 Baud Rate: 115200 Data Bits: 8 Parity: None Stop Bits: 1

Pack Control

Enable Packing
 Idle Gap Time: 12 msec

Match 2 Byte Sequence: Yes No Send Frame Only: Yes No
 Match Bytes: 0x [] 0x [] (Hex) Send Trailing Bytes: None One Two

Flush Mode

Flush Input Buffer **Flush Output Buffer**

With Active Connect: Yes No With Active Connect: Yes No
 With Passive Connect: Yes No With Passive Connect: Yes No
 At Time of Disconnect: Yes No At Time of Disconnect: Yes No

Done Internet

Lantronix XPort Device Server - Windows Internet Explorer

Address: http://192.168.1.16.242/secure/tx_conf.htm

AVCOM
Of Virginia Inc. 804-794-2500

Firmware Version: V6.5.0.7
MAC Address: 00-20-4A-AD-E1-4C

Avcom Of Virginia, Inc. - 7730 Whitepine Road, Richmond, VA 23237

Connect mode

Passive Connection: **Active Connection:**

Accept Incoming: Yes Active Connect: None
 Password Required: Yes No Start Character: 0x00 (in Hex)
 Password: [] Modem Mode: None
 Mdm Esc Seq: Yes No
 Pass Thru: Yes No

Endpoint Configuration:

Local Port: 26482 Auto increment for active connect
 Remote Port: 0 Remote Host: 0.0.0.0

Common Options:

Telnet Mode: Disable Connect Response: None
 Terminal Name: [] Use Hostlist: Yes No LED: Blink

Disconnect Mode

On Mdm_Ctrl_In Drop: Yes No Hard Disconnect: Yes No
 Check EOT(Ctrl-D): Yes No Inactivity Timeout: 0 : 0 (mins : secs)

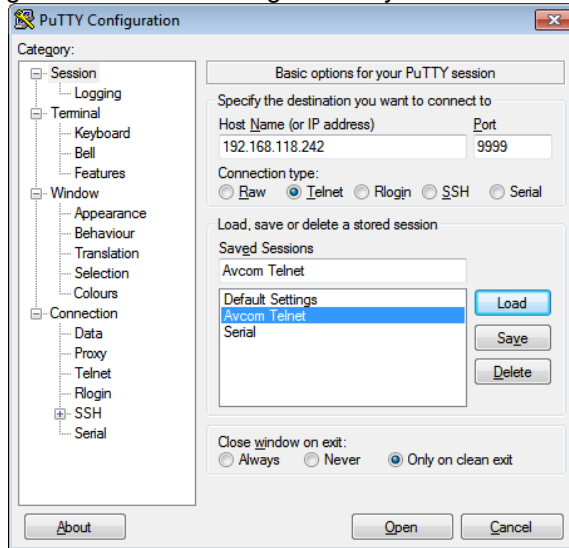
OK

Done Internet

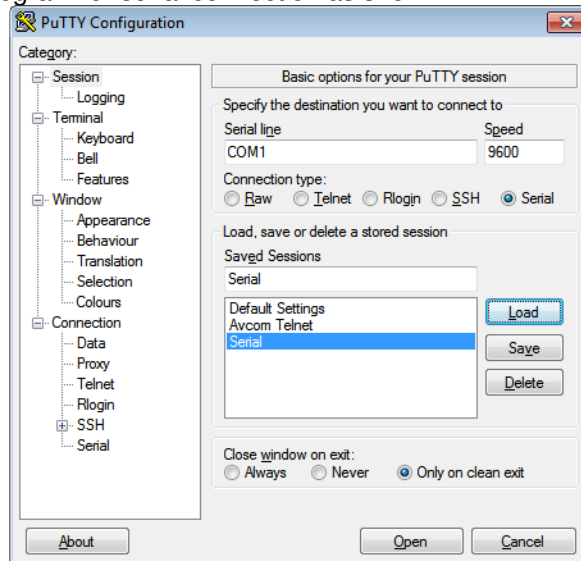
The similar parameters can also be seen and configured via serial or ethernet using a terminal emulator program such as HyperTerminal, PuTTY or equivalent.

Hyperterminal setup

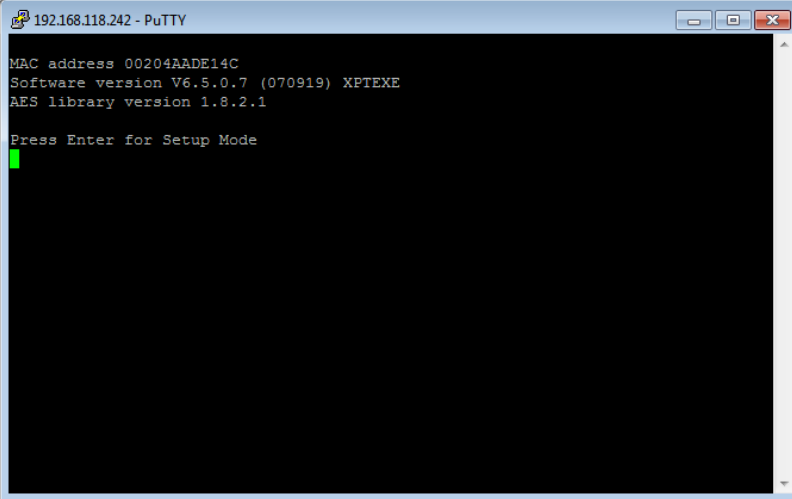
1. Connect standard serial or ethernet cable(crossover if connected directly) to spectrum analyzer(SA). Power off the analyzer if using serial.
2. Configure terminal program for ethernet using the analyzer's IP address and port 9999 as shown:



3. Configure terminal program for serial connection as shown:



4. If using an Ethernet connection then select Open to start the session. If using serial then select **Open and hold down X key while powering up SA**. The initial prompt appears as:



```
192.168.118.242 - PuTTY
MAC address 00204AADE14C
Software version V6.5.0.7 (070919) XPTXEXE
AES library version 1.8.2.1
Press Enter for Setup Mode
█
```

5. After Enter is selected then the current configuration (same as performing Query in the GUI) is shown as:

```
*** basic parameters
Hardware: Ethernet TPI
IP addr 192.168.118.242, no gateway set
```

```
*** Security
SNMP is          enabled
SNMP Community Name: public
Telnet Setup is  enabled
TFTP Download is enabled
Port 77FEh is    enabled
Web Server is    enabled
Web Setup is     enabled
ECHO is          disabled
Encryption is    disabled
Enhanced Password is disabled
Port 77F0h is    enabled
```

```
*** Channel 1
Baudrate 115200, I/F Mode 4C, Flow 00
Port 26482
Connect Mode : C0
Send '+++' in Modem Mode enabled
Show IP addr after 'RING' enabled
Auto increment source port disabled
Remote IP Adr: --- none ---, Port 00000
Disconn Mode : 00
Flush Mode : 00
```

NOTE -SBS, -CLM and a few other models require 230400

```
*** Expert
TCP Keepalive : 45s
ARP cache timeout: 600s
CPU performance: Regular
Monitor Mode @ bootup : enabled
RS485 tx enable : active low
HTTP Port Number : 80
SMTP Port Number : 25
MTU Size: 1400
Alternate MAC: disabled
Ethernet connection type: auto-negotiate
```

```

*** E-mail
Mail server: 0.0.0.0
Unit      :
Domain    :
Recipient 1:
Recipient 2:

- Trigger 1
Serial trigger input: disabled
  Channel: 1
  Match: 00,00
Trigger input1: X
Trigger input2: X
Trigger input3: X
Message :
Priority: L
Min. notification interval: 1 s
Re-notification interval : 0 s

- Trigger 2
Serial trigger input: disabled
  Channel: 1
  Match: 00,00
Trigger input1: X
Trigger input2: X
Trigger input3: X
Message :
Priority: L
Min. notification interval: 1 s
Re-notification interval : 0 s

- Trigger 3
Serial trigger input: disabled
  Channel: 1
  Match: 00,00
Trigger input1: X
Trigger input2: X
Trigger input3: X
Message :
Priority: L
Min. notification interval: 1 s
Re-notification interval : 0 s

Change Setup:
0 Server
1 Channel 1
3 E-mail
5 Expert
6 Security
7 Defaults
8 Exit without save
9 Save and exit      Your choice ?

```

6. To change the IP select 0. To change the port or baud rate select 1 and follow the prompts to enter the new values.
7. After entering the new values select 8 to Exit Without Save or 9 to Save and Exit.
8. Note for software programmers: Automated Query or Save Settings to Analyzer functions can be performed by following the same keystroke pattern as you would manually in a terminal program.