

Instructions for connecting the Centauri via Ethernet with a PC or other Ethernet Devices

The Ophir Centauri meter is primarily intended for standalone usage. However, it offers the capability to be controlled remotely via USB or Ethernet using Ophir's [StarLab](#) Windows PC application.

Ethernet connectivity is available from Centauri meter firmware version 5.02.

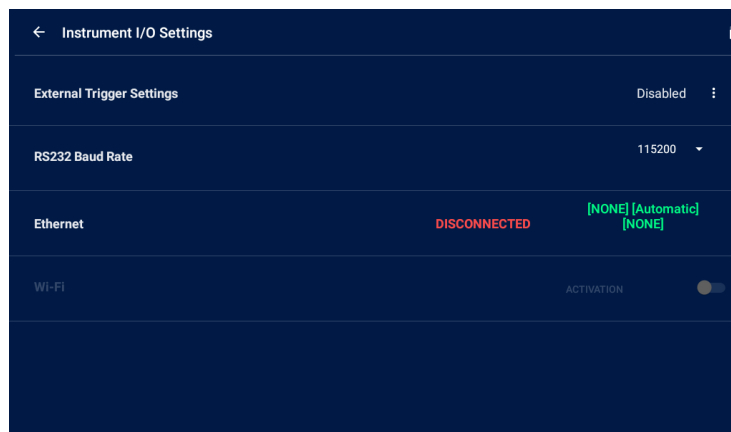
Alternately, customers who wish to integrate measurements from the Centauri into their own software can communicate and control the Centauri via Ethernet or RS232 by utilizing the set of Ophir 'User Commands' in their proprietary software code. For User Command details please see the "[Ophir User Commands.pdf](#)" document, downloadable from:

<https://www.ophiropt.com/en/g/user-commands> or installed together with StarLab software.

Centauri Ethernet Settings:

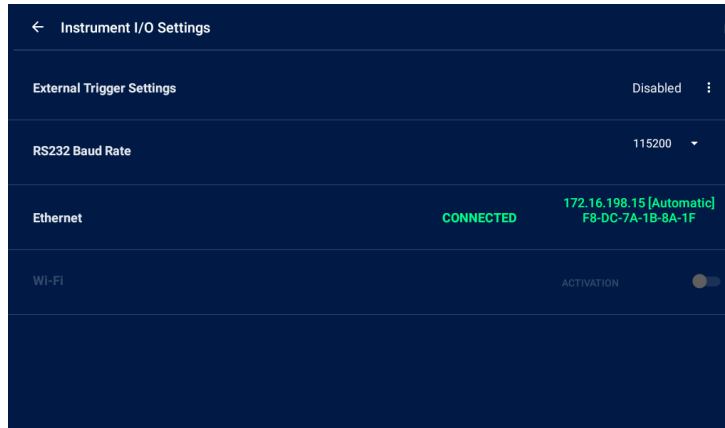
Go into the **Ethernet** Setting in the **Instrument I/O Settings** page.

When the meter is not connected via Ethernet, **Disconnected** will appear in red.

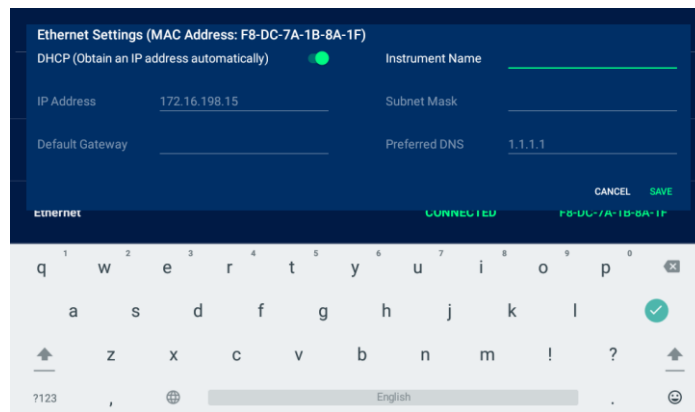


USER NOTES

When the meter is connected via Ethernet, **Connected** will appear in green. The IP address and device MAC address will appear.



Press the green text at the end of row showing the Ethernet status in order to open the **Ethernet Settings** window.



The IP Address and additional fields can be entered either manually or received from a connected network automatically via DHCP.

Text entered in the **Instrument Name** field can assist in identifying the meter.

TCP Connection and ports:

The Centauri can communicate via Ethernet using TCP/IP and HTTP protocols

TCP/IP Protocol:

The Centauri can communicate via Ethernet using TCP/IP protocol via port: 12321

TCP/IP is a Client-Server protocol with reliable packet confirmation packets.

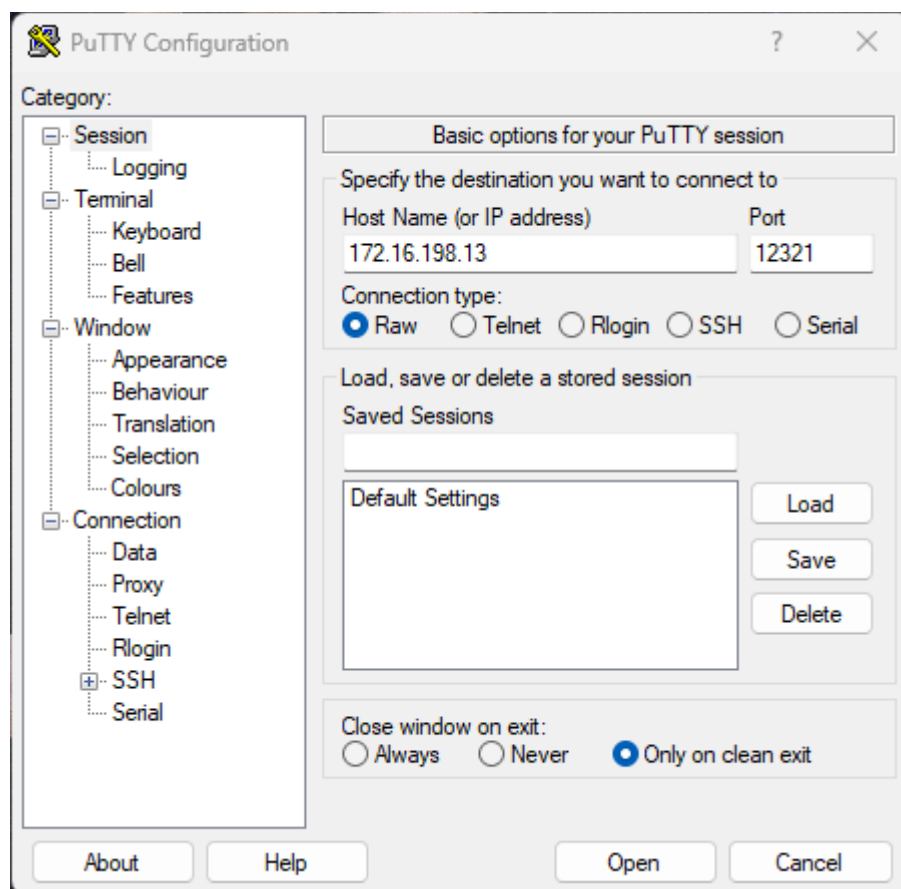
The Centauri is the server and the other Ethernet device is the client.

Communication with Centauri can be realized from proprietary software package on any Ethernet connected platform and a set of Ophir User Commands which are provided to allow control and query of the device.

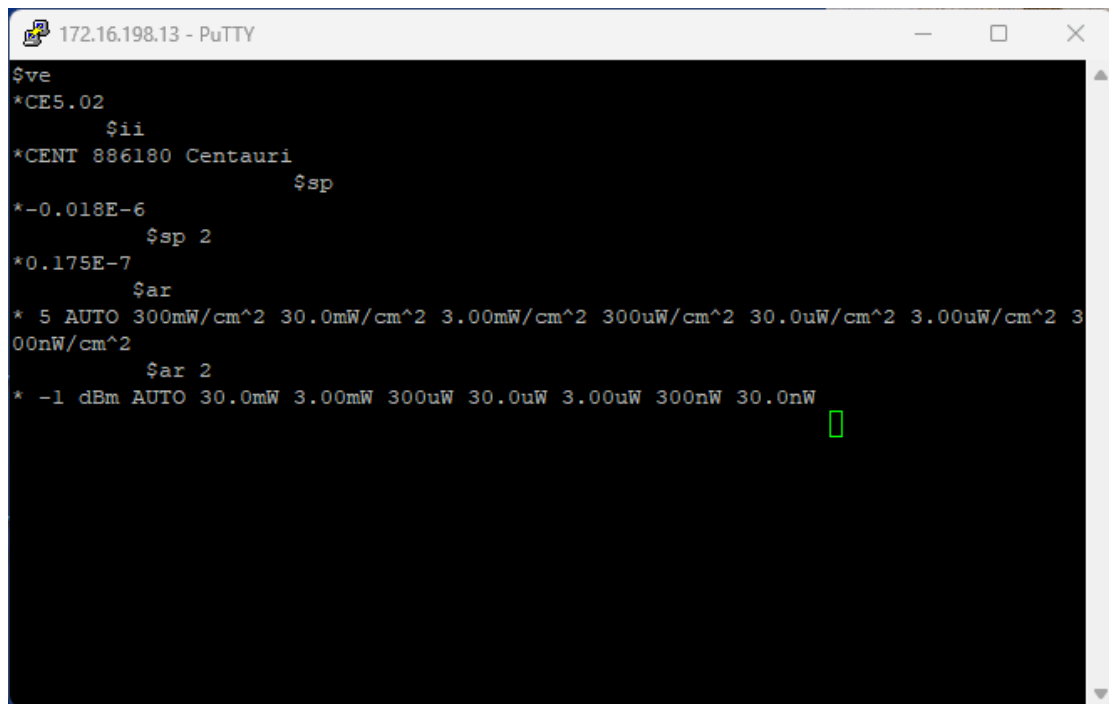
Any off-the-shelf Telnet style application can be used to communicate with Centauri

Using off the shelf application like “putty”

Opening a “Command port” (12321)



Examples of commands & replies sent via Telnet terminal

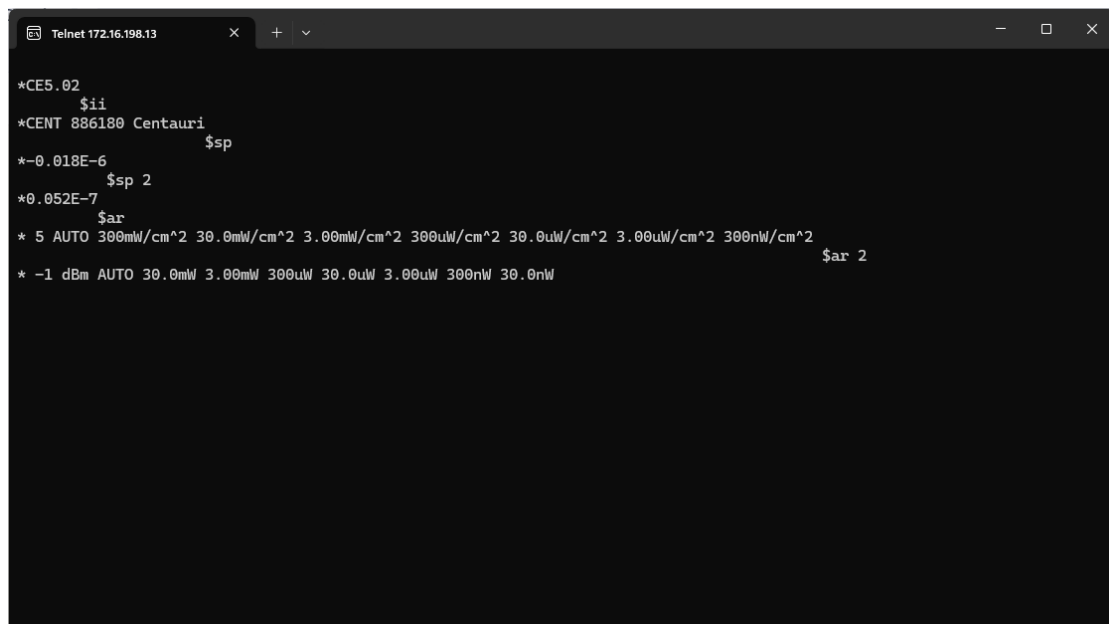


```

172.16.198.13 - PuTTY
$ve
*CE5.02
  $ii
*CENT 886180 Centauri
  $sp
*-0.018E-6
  $sp 2
*0.175E-7
  $ar
* 5 AUTO 300mW/cm^2 30.0mW/cm^2 3.00mW/cm^2 300uW/cm^2 30.0uW/cm^2 3.00uW/cm^2 300nW/cm^2
  $ar 2
* -1 dBm AUTO 30.0mW 3.00mW 300uW 30.0uW 3.00uW 300nW 30.0nW
  
```

Using a standard browser in Windows (will launch a Telnet console)

<telnet://172.16.198.13:12321>



```

Telnet 172.16.198.13
*CE5.02
  $ii
*CENT 886180 Centauri
  $sp
*-0.018E-6
  $sp 2
*0.052E-7
  $ar
* 5 AUTO 300mW/cm^2 30.0mW/cm^2 3.00mW/cm^2 300uW/cm^2 30.0uW/cm^2 3.00uW/cm^2 300nW/cm^2
  $ar 2
* -1 dBm AUTO 30.0mW 3.00mW 300uW 30.0uW 3.00uW 300nW 30.0nW
  
```

HTTP Protocol:

HTTP is a Client-Server protocol with reliable packet confirmation packets. The Centauri is defined as the Webserver and the other Ethernet device is the client. Communication will be established over port 80.

Example:

http://172.16.198.10

Centauri Version 5.02 offers the following functionality over HTTP protocol:

- Instrument measurements including statistics are exposed as passive web pages.
- Instrument log files can be downloaded via HTTP.

For latest version, please visit our website: www.ophiropt.com