Power Analysis Modules

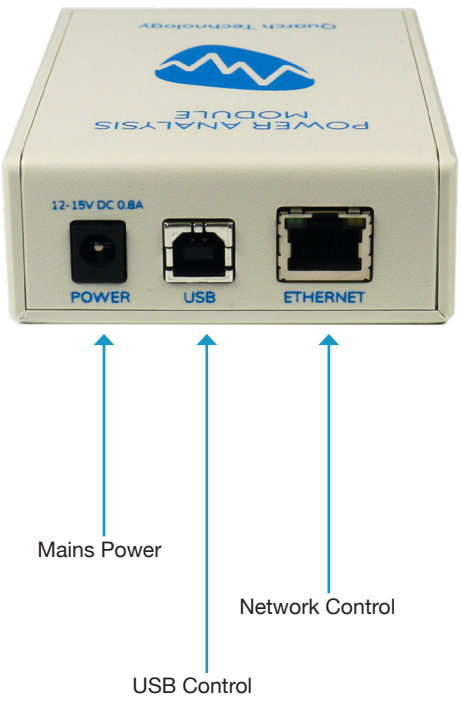
QTL2312 (and fixtures)

Quick Start Guide

Quarch Technology

Power Analysis Modules

QTL2312 - Power Analysis Module



Supplied Parts

Description	
PSU Multi-region power supply	
USB Cable USB 2.0 cable for control	
Fixture Cable USB-C cable to connect to the PAM fixture	

1 BEFORE YOU START

IMPORTANT

For power up, use only the PSU supplied with this equipment.

2 CHOOSE CONNECTION METHOD

USB

- Connect USB cable to P

Requires Quarch USB for TestMonkey and Torridon Terminal

Download from:
https://quarch.com/downloads/driver/

LAN

- Connect LAN cable(s)

LAN connection supports DHCP, netBIOS and TCP/IP discovery (Microchip-compatible).
TCPIP setup may be required for your network, this is covered in the technical manual

3 SOFTWARE / SETUP

Downloads

Quarch USB drivers for Windows can be found here:
https://quarch.com/downloads/driver/

QPS (Quarch Power Studio) for automated control is here:
https://quarch.com/file/power-studio/

Torridon Terminal, a simple Windows terminal program, is here:
https://quarch.com/file/torridon-terminal/

Quarchpy python library is here:
https://pypi.org/project/quarchpy/

Default LAN Settings

DHCP	Enabled
IP Address	192.168.1.99
IP Mask	255.255.255.0
LAN Mode	100-BaseT Full Duplex
netBIOS Name	From the white serial number label: QTL2312-nn-nnn (eg, QTL2312-01-004)

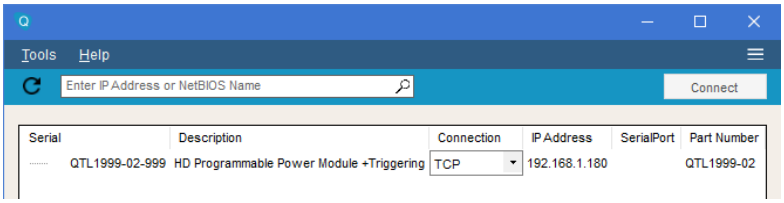
4 MANUAL LAN SETUP

Finding the IP address

On a network supporting DCHP and netBIOS, you can connect via the unit name (see section 3) and do not need the IP address.

You can find the IP address of a unit on the network in Torridon Terminal:

- Open the application so the connection screen is shown.
- LAN devices will be automatically located and shown.
- Click the popup menu in the top right of the connection screen.
- Select 'Advanced View'. The IP address of LAN devices will now be shown.



PAMs use a Microchip-compatible TCP/IP discovery system. If your network blocks this, the modules may not be shown correctly.

If your network does not support DHCP, the IP address will sit at 192.168.1.99

Manual IP Settings

- Using Torridon Terminal, connect to the module.
- Type the commands and press enter to execute the change.
- A power cycle may be required for LAN changes to take effect.

See the Technical Manual for all LAN setup commands. The basics are:

CONFIG:ETHERNET:IP?	Return the current IP address
CONFIG:ETHERNET:MASK?	Return the current IP mask
CONFIG:ETHERNET:GATE?	Return the current gateway address

CONFIG:ETHERNET:IP 192.168.100.42	Set the IP address
CONFIG:ETHERNET:MASK 255.255.255.0	Set the IP mask
CONFIG:ETHERNET:GATE 192.168.1.1	Set the gateway address

5 POWERING UP

Fixtures

Various ‘Power Analysis Fixtures’ are available. The fixture should be inseted into the host system, between the host and the device under test.

Insert the fixture while the host system is powered down. Next connect the supplied USB-C betweent the fixture and the Power Analysis Module. The STATUS led should change from yellow to bright green

Power up your host system and the device under test should function as normal

What next?

Download Quarch Power Studio, or one of our Ptyhon automation examples and start testing!

Power Studio is best for viewing large amounts of data, while direct Python automation may be better if you want simple automation and will process the data yourself later.

6 TROUBLESHOOTING

Module does not communicate

1. Check power supply is connected~
2. Check USB/LAN cable is attached correctly.
3. If using USB, check the driver is installed and device is visible in device manager.
4. If on LAN, ensure you have power cycled the module after plugging in to a new network or changing the network settings.

Fixture does not measure

1. Check the STATUS LED color
   OFF - No power to device
   YELLOW - No fixture communication
   RED - Fixture error
2. Run the command “*TST?“ to check for errors
3. Ensure you are using the USB-C cable that was supplied
4. Unplug then replug the USB-C cable

I need more help

1. Check out quarch.com for application notes and examples and the full technical manual for each module.
2. Email support@quarch.com for a quick response.
3. Call the office direct (UK office hours) on +44 1343 508 140.