HD Power Modules

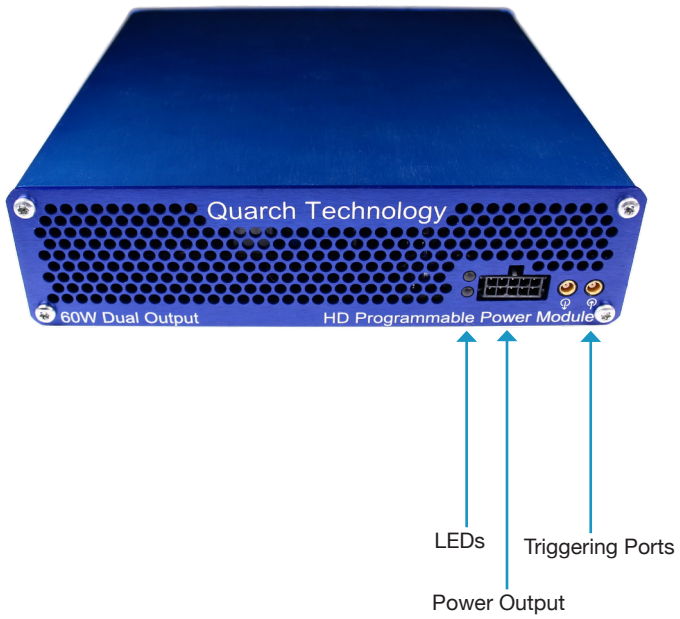
QTL1999 / QTL1995

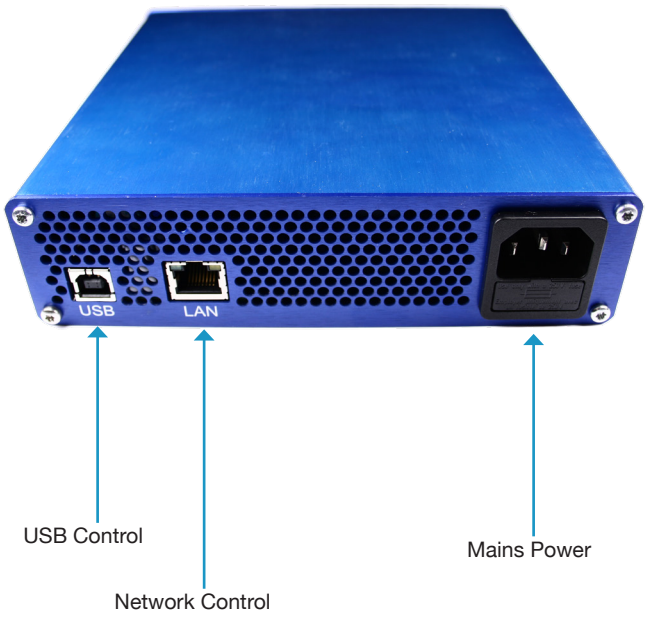
Quick Start Guide

Quarch Technology

HD Power Modules

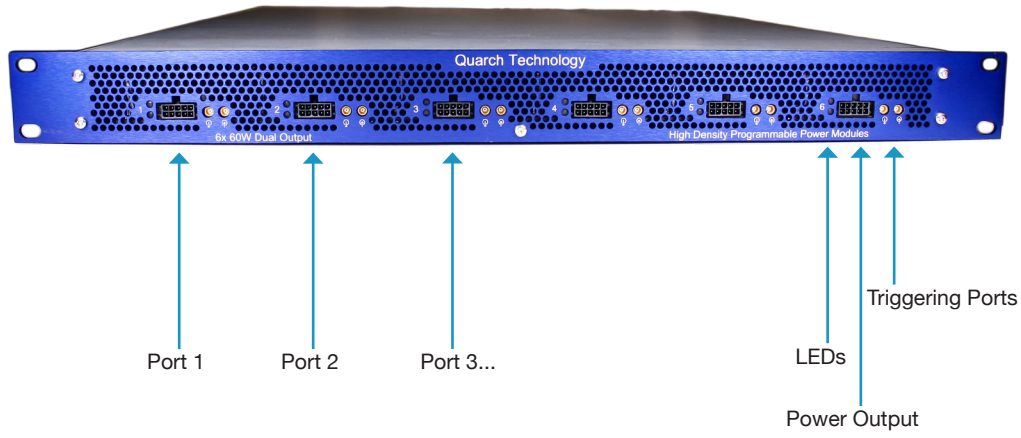
QTL1999 - HD Power Module + Triggering





HD Power Modules

QTL1995 - x6 HD Power Module + Triggering



Supplied Parts

Description	
Mains cable Region-specific mains cable	
USB Cable USB 2.0 cable for control (QTL1999 only)	
Output Cable Standard power output cable to connect to fixtures. One supplied per port.	

1 BEFORE YOU START

IMPORTANT

Please ensure that the supplied power cable is used with this equipment. Lower rated power cords may cause a hazard.

QTL1999 is large and heavy. It should be appropriately secured to the test rack before use.

2 CHOOSE CONNECTION METHOD

USB

- Connect USB cable to PC (available on QTL1999 only)

Requires Quarch USB Driver. Note that standard Intel 64 bit systems require the AMD64 installer

Download from:
http://quarch.com/downloads?field_file_type_tid=113

LAN

- Connect LAN cable(s)

QTL1995 requires one cable for each module port in use. Each LAN port connects to a single module only.

LAN connection supports DHCP, netBIOS and TCP/IP discovery (Microchip-compatible). Auto discovery will only work when network broadcast is available, generally when on the same subnet as your control PC.

3 SOFTWARE / SETUP

Downloads

Quarch USB drivers for Windows can be found here:
http://quarch.com/downloads?field_file_type_tid=113

QPS (Quarch Power Studio) is our main application for control:
https://quarch.com/file/power-studio/

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

Application note to get you started with automation are here:
https://quarch.com/downloads/application-note/

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 (QTL1999)	From the white serial number label: 1999-nn-nnn (eg, 1999-02-004)
netBIOS Name (QTL1995)	From the white serial number label plus position within the enclosure: 1995-nn-nnn-ppp (eg, 1995-02-004-001)

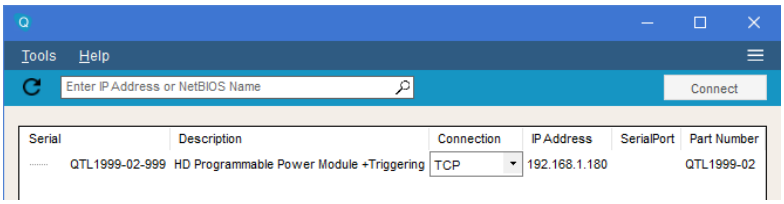
4 MANUAL LAN SETUP

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 QPS or 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.



HD Power Modules 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 Injection Fixtures’ are available. The fixture should be inseted into the host system, between the host and the drive under test.

NOTE: SFF (SFF-8639 / U.2) fixtures have a jumper block that must be configured for correctly for SAS and PCIe drives, as different voltages are required.

Insert the fixture while the host system is powered down. Next connect the cable up to the HD module output connector.

If you system fully supports hot-plug then simply power up your host. When you are ready, enable the HD power outputs via TestMonkey, QPS or the command “RUN:POWER UP“. The drive should enumerate as normal.

If your system requires the drive to power up with the host, then ‘injection sync’ versions of the fixtures are available. In this case you enable the HD outputs in advance THEN tuen on the host. When the fixture detects the host power, it will power up the drive. This ensures the injected power exactly matches the host power timing

What next?

Download Quarch Power Studio, or one of our Python 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 and power LED is green.
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.

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.