Power Injection Fixtures

Fixtures and accessories for Quarch Programmable Power Modules

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Data Sheet

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Power Injection Fixtures

Fixtures and accessories for Quarch Programmable Power Modules

Highlights

- Inject power into devices under test
- Support SAS, SATA, U.2, PCIe AIC, M.2 and more
- Cabling for use with Original Modules, XLC and HD

Use Cases

Bench Testing	Margin and measure with a simple bench set up
System Testing	Perform power testing on drives within a storage enclosure
Performance Testing	Combine with Oakgate/SANblaze/VDbench/Iometer to test power Vs IOPS

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Power Injection and Measurement

Quarch Programmable Power Modules can perform power margining, ramping, glitching and more. Using these simple fixtures, you can inject power into any standard interface: U.2, M.2, PCIe Slot, SAS, SATA and more.

Some devices, such as PCIe AIC cards, expect to power on at a very specific time during host power up. In this case, the Injection Fixture can synchronise power injection with the host power. This ensures the device under test is always powered at exactly the correct time.

Fixture Types

Two primary types of fixtures are available:

Older fixtures have a 6-pin power connector and were designed for the original power module, and the XLC. These can be used with any power module, including the HD (using the appropriate cable).

Newer fixtures have a 10-pin power connector and are designed for use with the newer HD power modules. This connector includes auxiliary power and GPIO pins for advanced fixture features. These fixtures can be used with the XLC module, but any additional features will be unavailable.

Supplied Parts

Injection Fixture - The main unit
Output Cable - 60cm output cable to connect injection fixture to the Power Module

Also Required

Downloads - Our website contains many useful downloads to help you get started: www.quarch.com

USB Drivers
Technical Manuals
Quick Start Guides
Example Scripts
TestMonkey GUI

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Support

Quarch provides direct support to all customers, regardless of the sales channel you use to purchase our equipment. We are available over email, or by phone during UK office hours. Our regional partners are also trained to handle many of the most common questions you might have.

Our support is normally free, though there may be charges if you require on-site training or significant development work. Please contact us if there is anything we can do to help.

Please see our website for access to drivers, technical manuals, quick-start guides, example scripts and more.

Email	**Phone**	**Web**
support@quarch.com	+44 1343 508 140	www.quarch.com/support

Ordering

Quarch have a network of specialist partners around the world. Please contact our partner in your region if you require a quote.

We recommend evaluating our products before purchase, so our partners will be happy to arrange a free evaluation unit.

Regional Contact Details

North America
SerialCables LLC
Colorado, California

Email sales@serialcables.com
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Fixture Versions

Product Code	Product Options	
QTLXXXX/KIT_YYY	Product code, made up from options below	
QTLXXXX	**QTL1809**	SAS/SATA/U.2 Power Injection Fixture
	QTL1789	PCIe GEN 3 x16 Slot Power Injection Fixture
	QTL2192	PCIe GEN 4 x16 Slot Power Injection Fixture
	QTL1965	PCIe x4 to M.2 Power Injection Fixture
	QTL2015	M.2 M-Key Vertical Injection Fixture
	QTL2062	SATA Power Cable Adapter
	QTL2065	ATX Power Cable Adapter
	QTL2191	GEN4 EDSFF Power Injection Fixture
/KIT_YYY	**/KIT_XLC**	Includes cable for use with XLC modules
	/KIT_HD	Includes cable for use with HD modules

Additional Cables

Product Code	Description
QTL1617	60cm XLC Power Module to ATX Cable Connects XLC power module to 4 pin Molex/ATX connector
QTL1697	60cm XLC Power Module to PCIe Card Module Cable Connects XLC power module to PCIe card modules
QTL1771	60cm XLC Power Module to Injection Fixture Cable Connects XLC power module to standard injection fixtures
QTL1981	60cm XLC Power Module to HD Injection Fixture Cable Connects XLC power module to HD injection fixtures
QTL1983	60cm HD Power Module to HD Injection Fixture Cable Connects HD power module to HD injection fixtures

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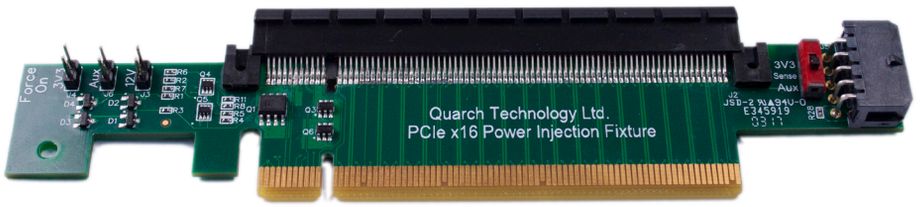
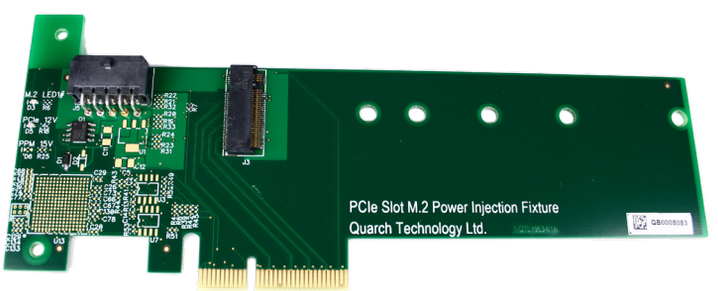


QTL1789 PCIe x16 Slot Injection Fixture

QTL1809 SAS/SATA/U.2 Injection Fixture



QTL1965 PCIe Slot M.2 Injection Fixture

QTL2015 M.2 M-Key Injection Fixture

QTL1983 HD PPM Output Cable

Technical Information

Characteristics	QTL1809	QTL1789	QTL2192	QTL1965	QTL2015
Host Connector	SFF-8639	x16 PCIe Slot		x4 PCIe Slot	M.2 M-Key
Device Connector	SFF-8639[*1]	x16 PCIe Slot		M.2 M-Key	M.2 M-Key
Max Speed	12Gb/s, GEN3	GEN3	GEN4	GEN3	GEN3
Supported on XLC	√	√	√	√	√
Supported on HD	√	√	√	√	√
Host Power Synchronization	X	√	√	√	√
Injection Connector	10 Pin Mini Tek				

[*1] Supports SAS, SATA and U.2 Devices

Characteristics (Cont.)	QTL2191
Host Connector	EDSFF x8
Device Connector	EDSFF x8
Max Speed	GEN4
Supported on XLC	√
Supported on HD	√
Host Power Synchronization	X
Injection Connector	10 Pin Mini Tek

Fixture Specific Features

Fixture	Features
QTL1809	- Jumper selects between 3v3 U.2 and 5V SAS/SATA devices
QTL1789 / QTL2192	- Switch to select measurement of 3v3 or 3v3_aux - Power sync can be disabled
QTL1965	- Switch selects between 1.8v SMBUS powered from PPM or Host
QTL2015	- MCX connector provides direct link to 3v3 host for external trigger

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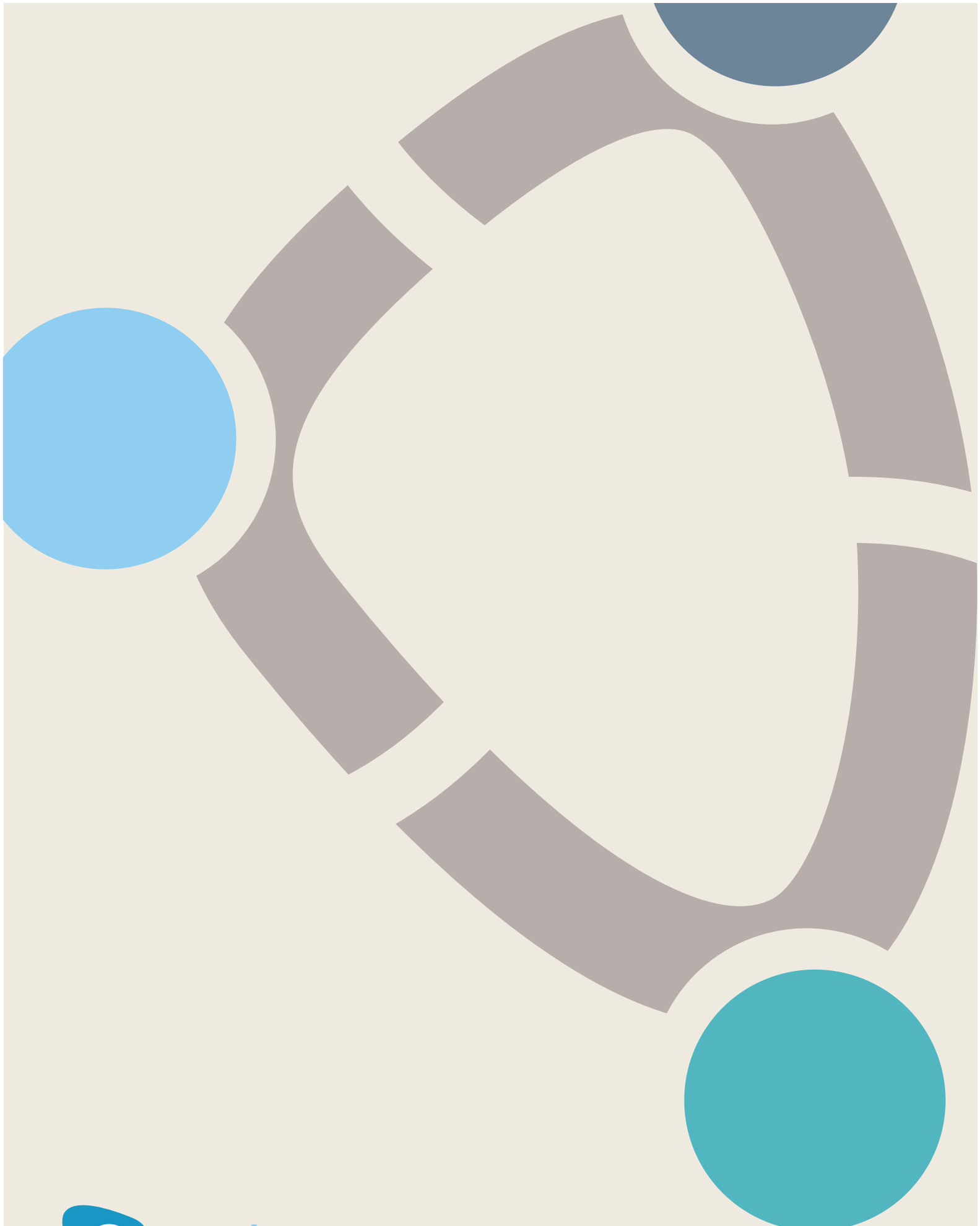

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