



Power Analysis Modules

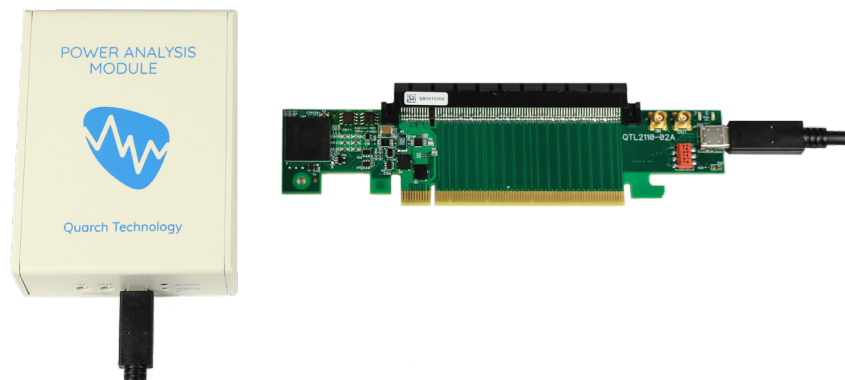
Capture and analysis of power and control signals
across a wide range of interfaces

Quarch
Data Sheet



Power Analysis Modules

Capture and analysis of power and control signals across a wide range of interfaces



Highlights

- Multi rail voltage/current/power measurement
- Digital sideband capture
- Oscilloscope function allows accurate power recording
- Low current measurement system, accurate at uA range
- Plug-and-play fixtures support a range of different interfaces
- Simple automation options

Use Cases

Characterisation	Power consumption monitoring over long periods and different use cases
Power Quality	See power up ramps, voltage noise and unusual power events
Sideband analysis	Capture sideband transitions and timings
Automation	Simple scripted control for complex unsupervised testing
External Triggering	Link to external test equipment to increase your test options





Measurement

Voltage and Current are simultaneously sampled, to give the most accurate possible power measurement. High resolution sideband capture allows you to see the precise time that sidebands assert in comparison to a power event.

Long term recording allows hours or even days of capture at high resolution. This is an order of magnitude more than is available on most alternative capture options.

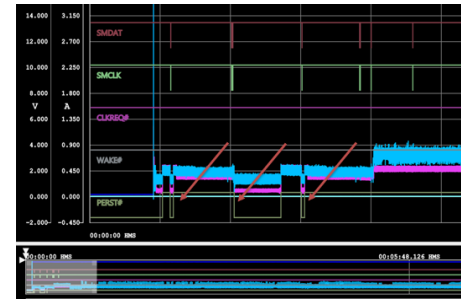
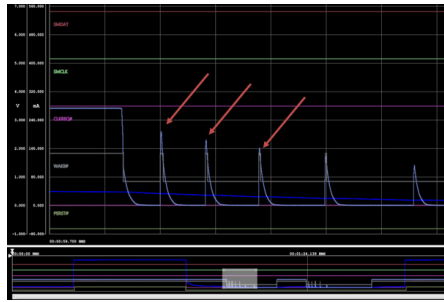
Quarch Power Studio allows you to add custom channels, annotations and comments. This provides you with a full overview of the performance of your product. Full access to raw data for your own processing is provided.

Control and Automation

Basic capture in Power Studio can be setup and run in seconds. USB and LAN control options allow for both bench testing and remote lab environments.

Our Python API allows automation of Power Studio, or direct access to the PAM to capture raw data

Application notes are available to help you get started quickly



Supplied Parts

- PAM** - The main unit
- Power Supply** - External 12v power supply, with multi-region plug
- USB Cable** - 2 meter USB cable
- Fixture Cable** - USB-C cable to connect to the measurement fixture

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
 - Power Studio Application





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



Web www.serialcables.com

China, Hong Kong

Saniffer
Hong Kong



Web www.saniffer.com

India

ESA Group
Bangalore



Web www.esaindia.com

Taiwan

Reeper Technology
Taipei



Web www.reeper.com.tw/

Israel

EMY-Tech
Misgav



Web www.emy-tech.com

Europe and ROW

Quarch Technology
Scotland, UK



Web www.quarch.com

South Korea

JWill Technology
Seoul



Web www.jwill.co.kr





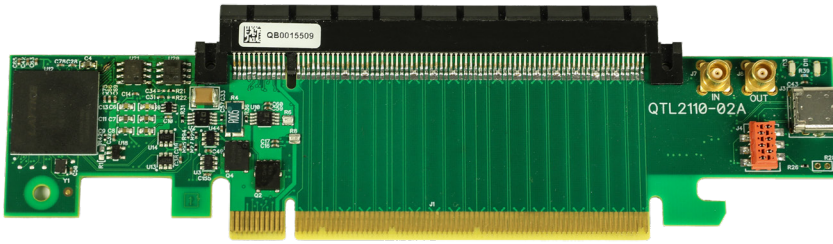
Products Versions

Product Code	Product Options
QTLXXXX/KIT_YY	Product code, made up from options below
QTLXXXX	QTL2312 Power Analysis Module - Single Unit
/KIT_YY	/KIT_1M PAM with 1M cable to injection fixture /KIT_2M PAM with 2M cable to injection fixture /KIT_3M PAM with 3M cable to injection fixture

PAM Injection Fixtures

Product Code	Description
QTL2347	Gen4 PCIe x16 PAM Fixture Injection fixture for x16 PCIe Slot based devices up to Gen4 speeds





QTL2347 Gen4 PCIe x16 PAM Fixture



PCIe x16 PAM Fixture - In test system



Technical Information - PAM Controller

Output Characteristics	QTL2312
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Input Voltage	12V DC
Form Factor	Desk Unit
Control Ports	USB, LAN
Injection Fixture Cable	USB-C
External Triggering	MCX IN/OUT

Technical Information - Innection Fixtures

Measurement Accuracy^{*1}	QTL2347
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Base Sampling Rate	250 KHz
Sample Averaging	1 to 32K Samples
Voltage Range	40mV - 19V
Current Range	100uA - 13A
Typical Voltage Accuracy	±(2mV+1%)
Current Accuracy (100uA-1mA)	±(2uA+2%)
Current Accuracy (1mA-13A)	±(2mA+1%)

*1 Provisional values, Current accuracy at 32K averaging

Monitored Rails	QTL2347
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Power Monitoring	3v3, 12v, 3v3_Aux
Digital Monitoring	PERST, WAKE, CLKREQ, SMDAT, SMCLK



