

Torridon Power Margining Module



Power Ramping, Interruption, Margining, and Monitoring Module

Reduce Time to Market

Cut time to market by 20% by automating test procedures

Reduce Capital Costs

Faster and more detailed testing means fewer test systems are required

Reduce Human Error

Automating test procedures increases consistency and results in far fewer mistakes. Test scripting provides logging and 100% repeatability

Increase Product Reliability

Advanced techniques, such as bounds testing and fault injection provide a higher level of confidence and reduced field returns

Power Margining Module:

Automated solution for power ramping, interruption, margining and monitoring of 5V and 12V power supplies. Power Margining Modules allow complex test setups involving multiple expensive pieces of equipment to be replaced with one low cost, integrated solution.

Complete Automation:

Simple and complex power profiles can be quickly generated through simple scripting and test cases may be fully automated.

Simple Integration:

The module works with your existing automated test setup and integrates with minimal effort. A simple command set allows for easy scripting. Quarch provides full support as standard while you get started

Who Can Benefit?

Drive Manufacturers
System Integrators
PSU Designers
Hardware Qualification Labs

Torridon Power Margining Module

Interface Specification

Power

- ▶ Supplied with 15V DC PSU

Comms

- ▶ USB
- ▶ Serial (With Interface Kit)
- ▶ Array Controller (USB, Serial, Telnet)

Output Specification

Output Voltage

- ▶ 12v Output: 0 - 14.4V
- ▶ 5v Output: 0 - 6V
- ▶ 3.54mV Resolution
- ▶ 1% Accuracy (at nominal)

Output Current

- ▶ 3A Continuous (at nominal)
- ▶ Unlimited when < 1mS

Tolerance

- ▶ $\pm 10\text{mV}$

Physical Dimensions

- ▶ Length 164.5mm
- ▶ Width 165.9mm
- ▶ Height 43.65mm

Measurement

On Demand

- ▶ Measure Voltage, Current and power at any time

Recording

- ▶ Up to 250KHz sampling
- ▶ Simultaneous measurement of all channels
- ▶ Trigger recording on power up, pattern execution or manually
- ▶ Download recorded data to graph voltage, current and power consumption
- ▶ Typical Accuracy on Voltage and Current measurements $\pm 1\%$
- ▶ Worst Case Current measurement accuracy: $\pm (3\% + 2 \text{ mA}) @ 30 - 3000\text{mA}$

Operating Modes

Constant Voltage

- ▶ Set voltage to any point within the output range

Custom Voltage Profile

- ▶ Program patterns for the outputs to follow
- ▶ 1uS Time resolution for patterns
- ▶ Describe step changes and ramps, positive and negative

Pattern Examples

- ▶ Ramp between voltages
- ▶ 'Glitch' power for a short time
- ▶ Apply Sawtooth/Square wave on top of a set voltage level

Ordering Information

QTL1455 - 12/5V Power Margining Module

Single units

- ▶ Ideal for bench testing, debugging and evaluation

QTL1609 - Drive Injection Card

- ▶ Allows the power module to be attached to a drive within an enclosure, via a flex circuit

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