Torridon PCIe 3.0 x16 Card Module

Quarch
Technology

Programmable Fault Injection and Hot Swap

Reduce Time to Market

Cut time to market by 20% for new products by automating manual test procedures.

Reduce Capital Costs

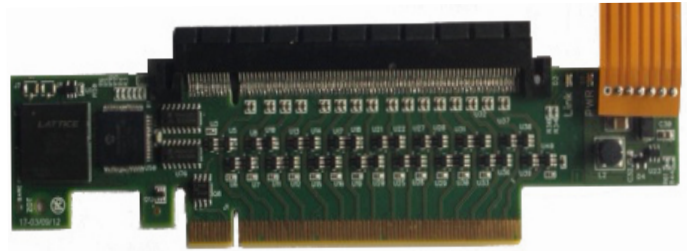Faster and more detailed testing means fewer test systems are required in the lab.

Reduce Error

Automating tests 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.

PCIe Card Module:
Make, break, and glitch any combination of signals on a PCIe x16 slot. Individual lanes, power, and sideband signals can all be switched independently or simultaneously.

Complete Automation:
Any hot-swap or connection failure can be performed using the provided GUI, or scripted for repeatable automated testing.

Simple Integration:
This module is part of the Quarch Torridon System which integrates with your existing test setup. A simple command set allows for easy scripting. Quarch provides full support as standard while you get started.

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Interface Specification

Power
▶ Supplied from Torridon Interface Kit or Array Controller

Comms
▶ USB and Serial with Interface Kit
▶ Telnet, USB, and Serial with Array Controller

PCIe Compatability

Form Factor
▶ Compatible with x16 PCIe host slot
▶ Compatible with x1 to x16 PCIe device card
▶ Displaces device by 40.4mm

Speed
▶ PCIe 3.0, 2.0, 1.1 and 1.0a

Switching

Independent Switches on:
▶ Every high speed signal
▶ Every power signal
▶ Every non reserved sideband signal including REFCLK

Physical Dimensions

▶ Length   167.25 mm
▶ Width   9.35 mm
▶ Height   37.94 mm

Timing Specification

Timers
▶ 6 Independent timers for multi stage hot-swap

Timing resolution
▶ 1mS

Pin-bounce resolution
▶ 10uS

Pin-bounce modes
▶ Constant Frequency
▶ User defined 100 bit pattern

Triggering
▶ External Trigger In/Out available on request

Glitching

Timing
▶ Glitch any combination of signals with pulses down to 50nS

Sequences
▶ Run glitches in sequences and PRBS patterns

Fault Injection

▶ Fail Individual Lanes
▶ Glitch power rails
▶ Fault one side of a pair
▶ Create random disruption

Support and Utilities

Phone and email support direct to the engineers as standard

'TestMonkey' GUI for rapid test prototyping, script generation and bench testing

Ordering Information

PCIe x16 Card Module
QTL1630 - PCIe x16 Card Module

Torridon Controllers
QTL1260 - Torridon Interface Kit
QTL1461 - 4 Port Array Controller
QTL1079 - 28 Port Array Controller

Quarch Technology Ltd

UK Sales / Technical Enquiries
+44 1343 508 140
enquiries@quarch.com

US Sales Office
+1 617 245 0528
us_enquiries@quarch.com

http://www.quarch.com