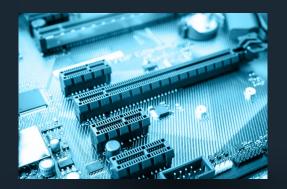
### **Tektronix**®

# PCIe Gen 5 Transmitter Compliance Testing



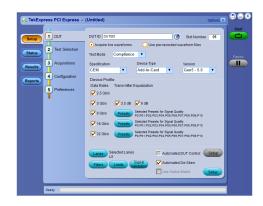
#### Adaptive Solutions for Advancing Standards

Rapidly advancing technologies and increasingly high signal speeds in data centers, enterprise cloud, and high-speed networking all require higher transfer rates (32.0 GT/s for Gen 5) while maintaining an acceptable level of signal integrity.

Tektronix's PCIe Gen 5 solution enables you to test your transmitter across x1, x4, x8, or x16 links with flexible test configurations and comprehensive reporting. It's designed for fast, reliable:

- Debugging
- Validation
- Compliance testing against the PCI-SIG specification

#### Save Time and Reduce Errors with Automation



TekExpress PCIe 5.0 Tx automation software:

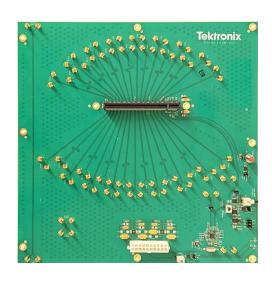
- Autonomously steps the DUT through different speeds, patterns, and Tx EQ presets
- Verifies the correct signal at the transmitter before taking measurements
- Performs channel and package embedding and de-embedding
- Supports legacy SigTest and SigTest Phoenix software versions and template files
- Performs 100 MHz reference clock jitter and signal integrity measurements with Silicon Labs' "PCIe Clock Jitter Tool" and Tektronix DPOJET software

## **Stay Ahead with Tektronix Gen 5 Pre-Compliance Fixtures**

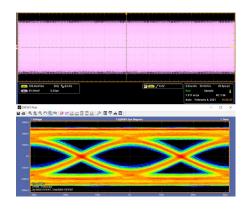
While the PCI Express 5.0 Integrators List (compliance) program is still under development, the industry has rapidly adopted Gen 5 technology.

Tektronix has developed non-compliance PCI Express 5.0 CEM test fixtures to help you keep your project moving forward until fixtures are available from the PCI-SIG.

Tektronix pre-compliance fixtures can be used for transmitter testing from 2.5 GT/s to 32.0 GT/s, receiver testing at 32.0 GT/s, REFCLK jitter and AC testing, and add-in card PLL bandwidth testing.



#### **Optimized Reference Clock Jitter Testing**



With Gen 5's maximum data rate extending to 32.0 GT/s, it's crucial to be as precise as possible characterizing PCle 100 MHz REFCLK drivers and delivery mechanisms. Higher bandwidths are made possible through a series of technological advancements and trade-offs including dropping the allowed jitter limit for REFCLKs. This trend is expected to continue as the PCI-SIG continues progressing to 6.0 specifications. As measurement methodologies become increasingly complex, our PCle Gen 5 Solution manages the necessary intricacies so engineers can make data-driven enhancements to their designs.



## DPO70000SX Oscilloscopes

DPO70000SX ATI Performance Oscilloscopes deliver the industry's most accurate capture of high-speed signal behavior to verify, validate, and characterize your next generation designs



# PCIe Tx & Rx Validation

Watch this webinar featuring Tektronix and Anritsu experts on PCle Gen 4 and Gen 5 validation.



### MSO/DPO70000 Oscilloscopes

Discover your real signals and capture more of their details with the industry's highest waveform capture capability. Automate setup, acquisition and analysis of highspeed serial data signals.



#### PCIe Gen5 Tx Technical Brief

Read this overview of PCIe Gen 5 and learn about our transmitter test solution..



# PCIe Tx Compliance/ Debug Solution

View this data sheet for a deeper dive into the TekExpress PCle Tx Compliance/Debug solution and how it can help you analyze and optimize complex PCle designs with ease



### PCIe Automated Multi-Lane Testing

Read this application note to learn how to address the requirements for a fully automated test environment given the need to physically change coaxial connections between the different channels.

