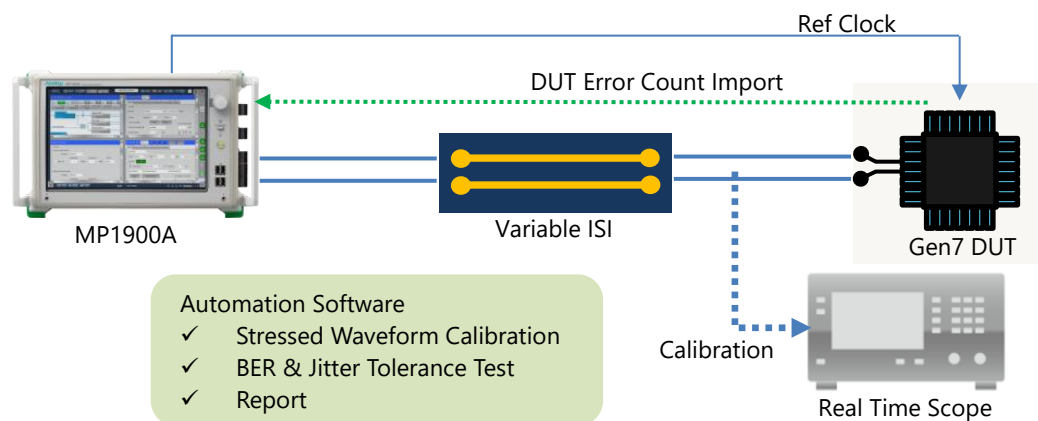


PCI Express 7.0 Base Specification Test Solution

Signal Quality Analyzer-R MP1900A



As the use of AI and edge computing is accelerating, data centers are rapidly evolving to support higher speed, larger capacity, and lower latency. The development of the PCIe 7.0 Base Specification is complete for PCI-Express, which is used as the internal interface for data center components such as transmitters, servers, and storages, and the creation of a CEM specification compliance test standard is now underway. In addition to the PCIe 1.0 to PCIe 6.0 receiver tests that it has supported as a certified tester, the Signal Quality Analyzer-R MP1900A provides presets and compliance patterns required for PCIe 7.0 Base Specification tests. It automates stress signal calibration and jitter tolerance tests, helping to reduce the design validation time.



Features

- **Support of PCIe7 Base Specification design validation through high-quality waveform output**
Offers performance that surpasses the required PCIe7 specification (SNDR: 35 dB, residual jitter: 108 fs) and supports device margin tests by generating jitter and noise.
- **Automation for shorter evaluation times and higher efficiency**
Provides automation functions for stress signal calibration and jitter tolerance testing.
- **Flexible platform with excellent expandability**
Allows flexible system configuration through a plug-in module platform and can be expanded to support the PCIe7 CEM Specification in the future.
- **Support of PCIe legacy receiver tests**
Supports Base/CEM receiver tests up to PCIe6, in addition to PCIe7 Base.

Anritsu MP1900A

The Signal Quality Analyzer-R MP1900A is a multi-channel BERT of the plug-in module type. Equipped with a pulse pattern generator with a differential interface, capable of outputting signals up to 32.1, 58.2, or 64.2 Gbaud, a high sensitivity input error detector, a jitter generator, and a noise generator, it supports automatic measurements for jitter tolerance tests. For the latest information about the selection of test and evaluation devices, the PCIe1-6 configuration, and others, see [Signal Quality Analyzer-R MP1900A series Selection Guide](#).

PAM4 PPG MU196020C

Baud Rate	2.4 to 64.2 Gbaud (Opt-003)
Emphasis Tap	4 taps (Opt-011)
SNDR	35 dB (typical value)
Residual Jitter	108 fs (typical value)
Tr/Tf (20 to 80%)	6.0 ps (typical value)

Devices Recommended for PCIe7 Base Tests

Model	Product Name	Option
MP1900A	Signal Quality Analyzer-R	-
MU191000A	Synthesizer	-
MU181500B	Jitter Modulation Source	-
MU196020C	PAM4 PPG	003, 011
MU196050B	Noise Generator	-

Recommended Software Options

Jitter Tolerance Test	MX183000A-PL001
DUT Error Counts Import *1	MX183000A-PL031

*1: Bit error count value to be retrieved from the DUT
(via USB or Ethernet connection)

Automation Software

GRL-PCIE7-BASE-RXA software supports the 64 Gbaud PAM4 (PCI-Express Gen7) data rate for Base Spec. Rx tests including automatic Eye calibration. It uses the customer's own real-time oscilloscope to automatically collect and analyze transmitted waveforms for signal quality tests, and outputs measurement reports in either PDF or csv format.

Ordering Information

GRL-PCIE7-BASE-RXA	PCIe 7.0 Base Specification Rx Test Software license
--------------------	---------------------------------------------------------

Teledyne LeCroy and Tektronix automation software are also supported. For details, contact our sales representative.

For the latest information about the supported oscilloscope and others, see [Signal Quality Analyzer-R MP1900A series Selection Guide](#).