PCI Express Gen4/5 Receiver Test Solution
Signal Quality Analyzer-R MP1900A

The Signal Quality Analyzer-R MP1900A series is a high-speed BER test solution for R&D of PCI Express and high-speed devices. Combined installation in one box with jitter and noise generator, high-quality waveform PPG with integrated 10Tap emphasis, high input sensitivity ED with clock recovery and variable CTLE and Link negotiation function required by PCI Express receiver test, the MP1900A supports high-reproducibility jitter and noise tolerance tests making design and verification efficient.

[Target Applications]
PCI Express and high speed interfaces (USB3.1, Thunderbolt 3, 100 GbE/400 GbE)

**Features**
- Protocol aware and 1 box Receiver test solution for PCI Express Gen1 to 5
- High speed BERT from 2.4 Gbit/s to 32.1 Gbit/s
- Low intrinsic jitter, high-quality output waveform, and high-sensitivity input
- Link Training/Equalization and LTSSM Analysis
- Support Common/Separate Clock Architecture
- Skip ordered sets and 8B/10B, 128B/130B encoding
- Maximum 10Tap Emphasis function
- 12 dB CTLE and clock recovery functions
- Integrated noise (CMI and DMI) and jitter (SJ, RJ, BUJ and SSC) injection
- Event Trigger Function for Tx/Rx Link Equalization Test

Supports physical layer measurements of add-in cards and system boards
- Tx/Rx Link Equalization Response Test
- Rx Link Equalization Test
- Receiver Jitter Tolerance Test

**Target Applications**
- Supports physical layer measurements of add-in cards and system boards
- Physical layer measurements of add-in cards and system boards
- Link Training State transitions
- LTSSM Log
Typical Specifications

21G/32G bit/s SI PPG MU195020A

- **Bit Rate**: 2.4 Gbit/s to 21 Gbit/s, 2.4 Gbit/s to 32.1 Gbit/s (MU195020A-001)
- **Number of Channels**: 1 or 2
- **Output Amplitude**: 0.2 Vp-p to 2.6 Vp-p (Differential)
- **Emphasis Taps**: (MU195020A-011) 10Tap
- **Tr/Tf (20 to 80%)**: 12 ps (typ.)
- **Noise Generator MU195050A**
  - **CMI Frequency**: 0.1 GHz to 6 GHz
  - **DMI Frequency**: 2 GHz to 10 GHz

21G/32G bit/s SI ED MU195040A

- **Bit Rate**: 2.4 Gbit/s to 21 Gbit/s, 2.4 Gbit/s to 32.1 Gbit/s (MU195040A-001)
- **Number of Channels**: 1 or 2
- **Input Amplitude**: 0.1 Vp-p to 2 Vp-p (Differential)
- **Input Sensitivity**: 13 mV (Eye Height 21 Gbit/s) (typ.)
- **Clock Recovery (MU195040A-022)**: 2.4 Gbit/s to 32.1 Gbit/s, support SSC input
- **CTLE (MU195040A-011)**: 0 to –12 dB

Ordering Information

Please specify the model/order number, name and quantity when ordering. The names listed in the chart below are Order Names. The actual name of the item may differ from the Order Name. Contact your sales representative for more details.

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