

Signal Integrity Analysis Multi-Channel High-Performance BERT Signal Quality Analyzer-R MP1900A

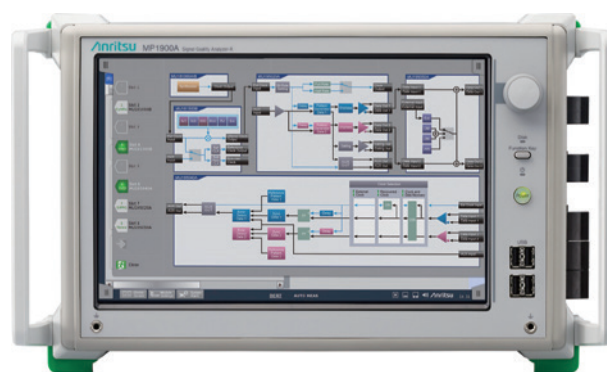


To cope with increasing data traffic caused by the widespread popularity of smartphones and mobile terminals, data-center network interfaces are being transitioned to the faster 200 GbE and 400 GbE standards, while communications-equipment interconnects are adopting PCI Express Gen4 supporting faster speeds of 16 Gbit/s; multi-channel technologies are also being deployed.

Anritsu's Signal Quality Analyzer-R MP1900A series is a high-performance BERT with 8 slots for modules, such as a 32 Gbit/s Multi-channel PPG, ED, and Jitter/Noise Generator, to expand measurement applications supporting signal integrity analyses of ever-faster devices. In addition to Physical layer measurement functions for broadband network interfaces, the all-in-one MP1900A supports PCI Express bus, etc., interface measurements.

[Target Applications]

100 GbE/200 GbE/400 GbE, CEI-25G/28G/56G/112G, InfiniBand EDR/HDR, Fibre Channel, PCI Express Gen 1 to 5, Thunderbolt 3, USB3.1 Gen1/2, Optical modules, SERDES, AOC, High-speed Interconnects

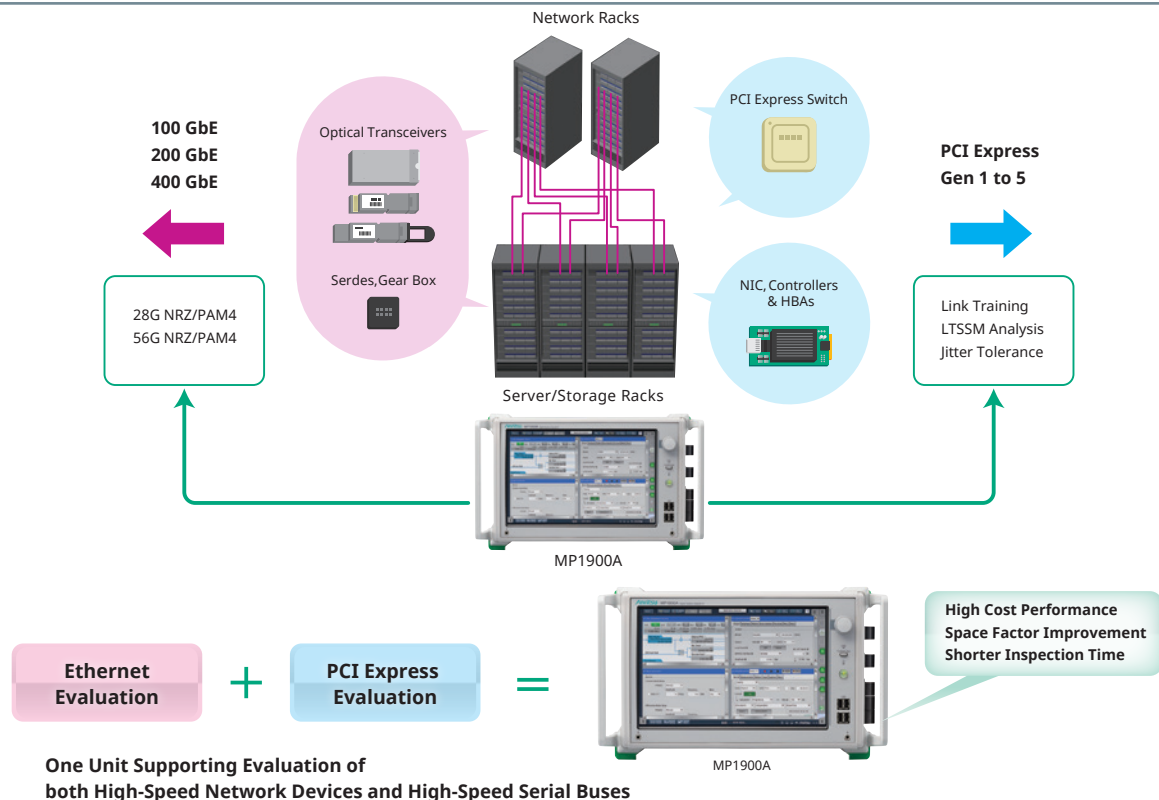


MP1900A

Features

- 512 Gbit/s max. transmission capacity, one main frame expandable to 16 ch (filling 8 slots with 32 Gbit/s 2 ch PPG)
- All-in-one support for both high-speed Ethernet and PCI Express interface tests
- Wideband 32 Gbit/s SI PPG/ED (MU195020A/MU195040A)
 - Bit rate of 2.4 Gbit/s to 32.1 Gbit/s
 - NRZ/PAM4 Support
 - 10Tap Emphasis
 - Multi-band CTLE (8 Gbit/s, 16 Gbit/s, 28 Gbit/s bandwidths)
 - Low Intrinsic Jitter output of random Jitter 115 fs rms (typ.)
 - High-sensitivity Data input of 15 mV (Eye Height) (typ.)
 - 1 ch/2 ch Selection
- PCI Express Link Training, LTSSM analysis (using MU195020A/MU195040A/MX183000A-PL021)
- Jitter Addition, Jitter Tolerance measurement functions (SJ/RJ/BUJ/SSC, using MU181500B/MX183000A-PL001)
- Voltage Noise Addition function (Common/Differential/White Noise, using MU195020A/MU195050A)

All-in-One High-Speed Network and Bus Measurements



Specifications

Signal Quality Analyzer-R MP1900A

LCD	12.1-inch, WXGA 1280 × 800
Remote Interface	GPIB, LAN
Module Slots	8
External Peripheral I/F	USB × 6, VGA × 1, HDMI × 1
OS	Windows Embedded Standard 7
Power	100 V(ac) to 120 V(ac), 200 V(ac) to 240 V(ac) 50 Hz to 60 Hz
Power Consumption	1350 VA max.
Dimensions and Mass	340 (W) × 222.5 (H) × 451 (D) mm 20 kg max. (excluding modules)

21 G/32 G bit/s SI ED MU195040A

Operation Bit Rate	2.4 Gbit/s to 21 Gbit/s or 32.1 Gbit/s
Number of Channels	1 or 2
Input Amplitude	0.05 Vp-p to 1.0 Vp-p (Single-End) 0.1 Vp-p to 2.0 Vp-p (Differential)
Input Sensitivity	15 mV (Eye Height 28.1 Gbit/s)
CTLE	Peak Frequency: 14, 8, 4 GHz Gain: 0 to -12 dB
Clock Recovery	Yes, SSC support
PCIe Link Training	Supported (MX183000A-PL021)
I/O Connector	K (f)

21G/32G bit/s SI PPG MU195020A

Operation Bit Rate	2.4 Gbit/s to 21 Gbit/s or 32.1 Gbit/s
Number of Channels	1 or 2
Output Amplitude	0.1 Vp-p to 1.3 Vp-p (Single-end) 0.2 Vp-p to 2.6 Vp-p (Differential)
Emphasis	10Tap
Tr/Tf (20 to 80%)	12 ps (typ.)
Random Jitter	115 fs rms (typ.)
PCIe Link Training	Supported (MX183000A-PL021)
I/O Connector	K (f)

Noise Generator MU195050A

Number of Channels	2
Insertion Loss	-3 dB
CMI	0.1 GHz to 1 GHz 1 GHz to 6 GHz
DMI	2 GHz to 10 GHz
White Noise	10 MHz to 10 GHz
Crest Factor	>5

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.

Model/Order No.	Name
MP1900A	Signal Quality Analyzer-R
MU195020A	21G/32G bit/s SI PPG
MU195020A-001	32G bit/s Extension
MU195020A-010	1ch Data Output
MU195020A-020	2ch Data Output
MU195020A-011	1ch 10Tap Emphasis
MU195020A-021	2ch 10Tap Emphasis
MU195020A-030	1ch Data Delay
MU195020A-031	2ch Data Delay

Model/Order No.	Name
MU195040A	21G/32G bit/s SI ED
MU195040A-001	32G bit/s Extension
MU195040A-010	1ch ED
MU195040A-020	2ch ED
MU195040A-011	1ch CTLE
MU195040A-021	2ch CTLE
MU195040A-022	Clock Recovery
MU195050A	Noise Generator
MU195050A-001	White Noise
MX183000A-PL021	PCIe Link Training

The MP1900A main frame is backwards compatible with MP1800A series modules, including the MU181000B, MU181500B, MU183020A*, MU183021A*, MU183040B*, MU183041B*, etc. and the MX183000A software*.

*: Modules and software to be supported successively; refer to selection guide for more details.

The contents of this leaflet may change without prior notice.