Anritsu envision:ensure

PPG with Built-in ISI and Channel Emulation Functions

Signal Quality Analyzer-R MP1900A

PAM4 PPG MU196020A

SQA-R

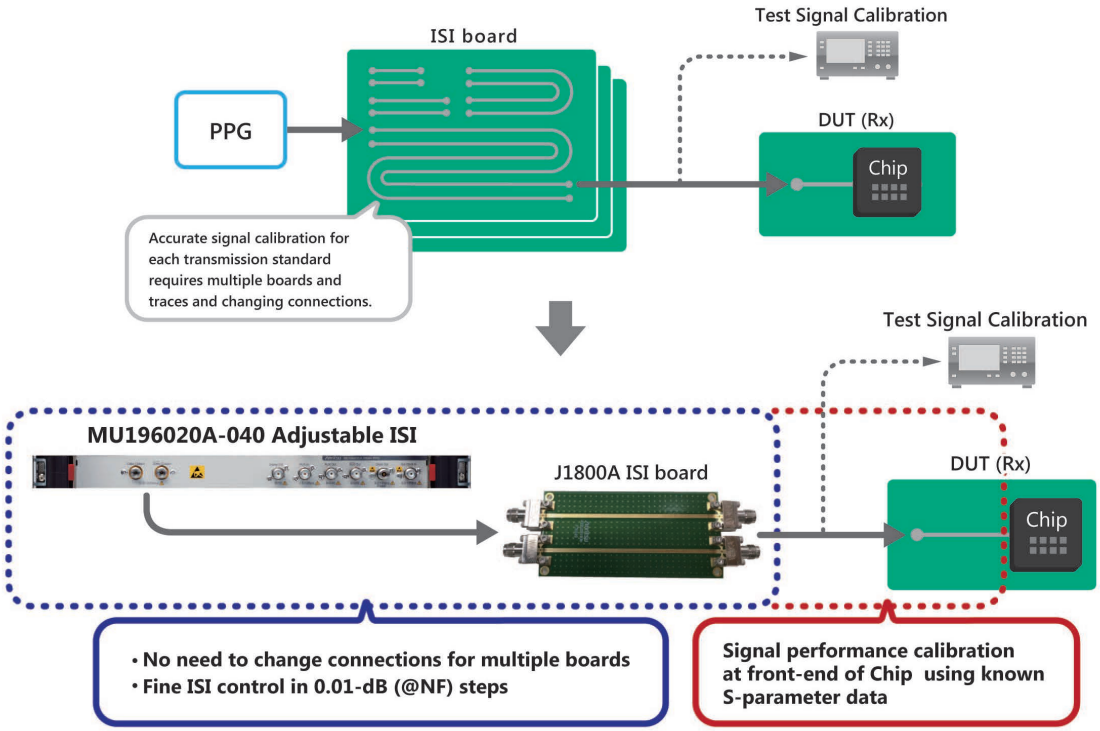
Due to the rapid spread of cloud computing, faster communications standards, such as 400 GbE and PCI Express Gen5 are being examined for high-speed processing of large data volumes by network servers and digital equipment. Faster signal speeds require even better interconnectivity between these equipment and internal connections, and assuring signal integrity requires incorporation of Emphasis functions in high-speed devices to compensate for transmission path losses.

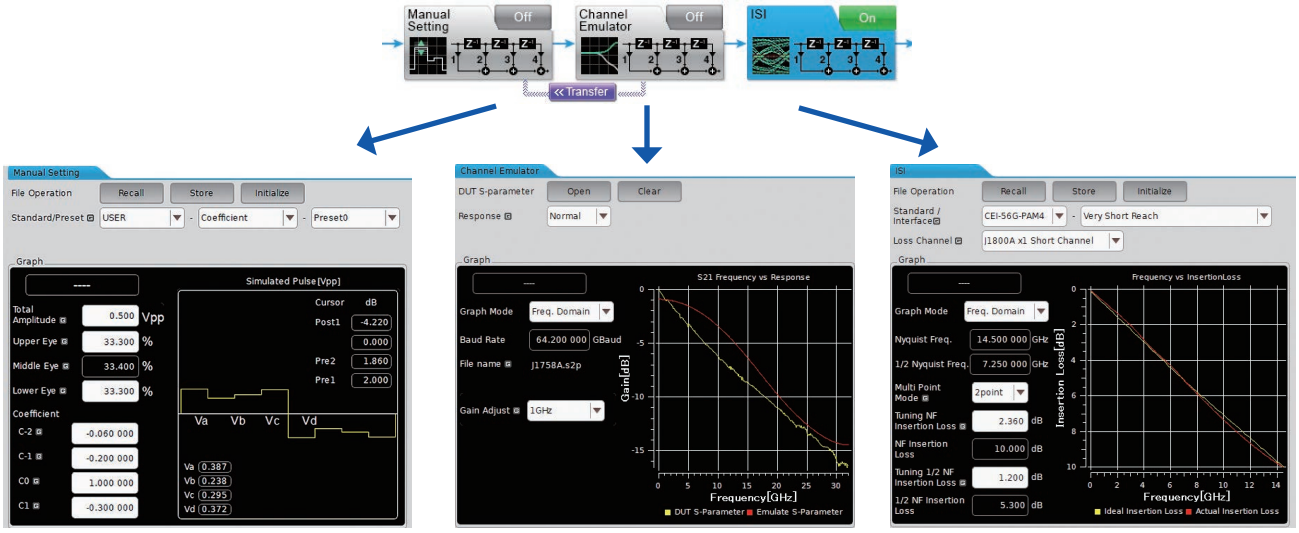
The MP1900A series pulse pattern generator (PPG) for evaluating high-speed interfaces has a built-in Emphasis function and can generate signals emulating input/output channel loss of various high-speed devices, PC boards, cables, etc. As a result, channel-loss dependent high-speed device performance tests can be run easily with good reproducibility without needing to prototype multiple channel boards, helping cut development time.

[Wide Application Support]
100 GbE/200 GbE/400 GbE, CEI-25 G/28 G/56 G/112 G, InfiniBand EDR/HDR, Fibre Channel, Optical module, SERDES, AOC, High-speed Interconnect

Key Features

- Channel loss dependency tests of high-speed devices can be implemented with good reproducibility.
- Generates channel loss and loss-corrected signals using Emphasis control
- Emulates longer channels (higher loss) with Emphasis of up to 20 dB
- Calculates Emphasis setting automatically by loading S-parameter file





Corrects signal to target EH/EW using max. 4Tap Emphasis

Emulates S2P and S4P file insertion Loss or performs Emphasis calibration

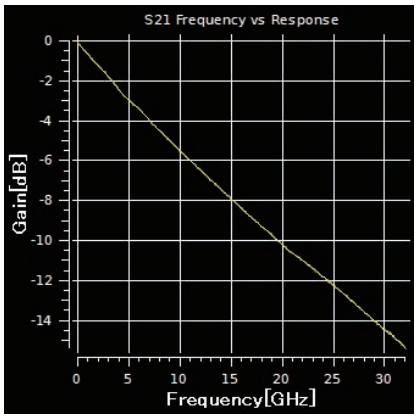
Emulates ISI using Nyquist frequency Loss setting

Typical Specifications

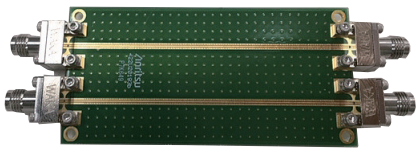
MU196020A-040

Channel Emulator	Normal: Emulates Insertion Loss using S-parameter data Inverse: Performs De-Emphasis compensation of S-parameter Insertion Loss S-Parameter file: S2P, S4P
ISI	Emulates ISI output using CEI Nyquist frequency loss setting Supports loss control in combination with ISI Board J1800A/J1758A accessory part

J1800A (V Connector)



J1800A Typical Performance



External View

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
MU196020A	PAM4 PPG
MU196020A-001	32G baud
MU196020A-002	58G baud
MU196020A-003	64G baud
MU196020A-011	4 Tap Emphasis
MU196020A-030	Data Delay
MU196020A-040	Adjustable ISI
MU196020A-042	FEC Pattern Generation
MU196020A-050	Inter-Module Synchronization

Model/Order No.	Name
J1800A	ISI Board V
J1758A	ISI Board

*: The MU196020A-040 requires the MU196020A-011 option.

The contents of this leaflet may change without prior notice.

ANRITSU CORPORATION
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