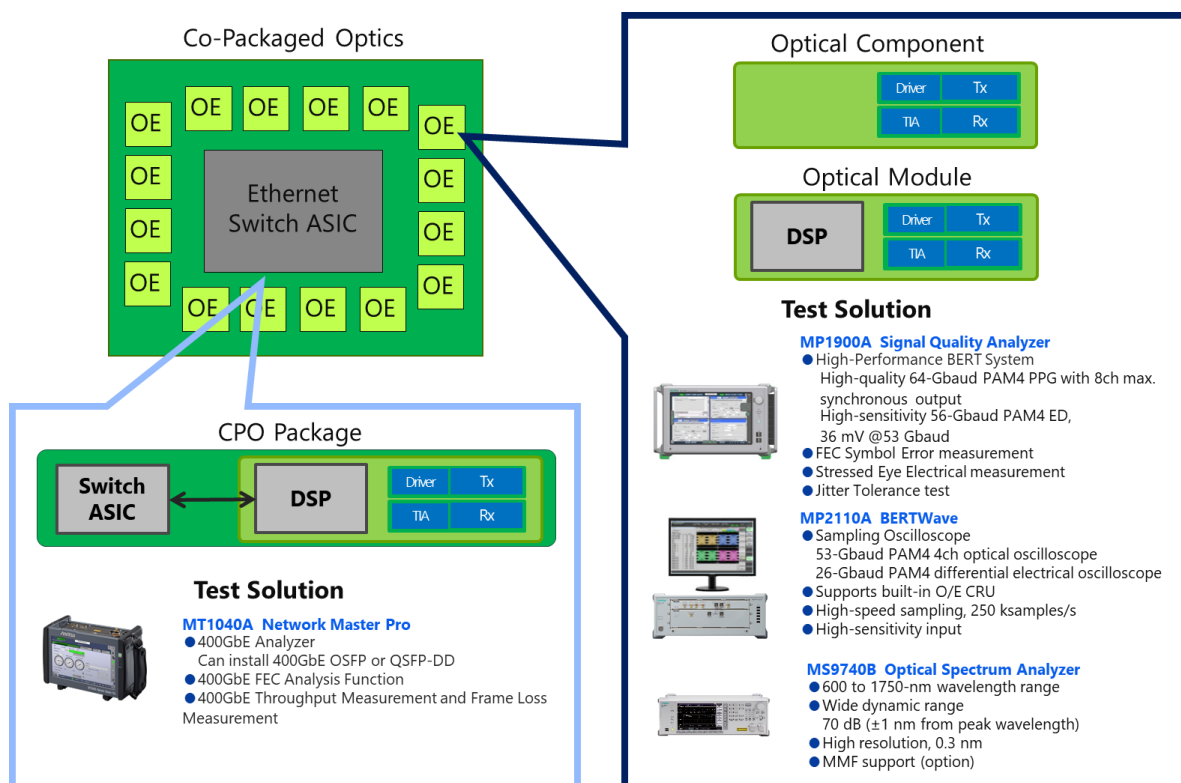


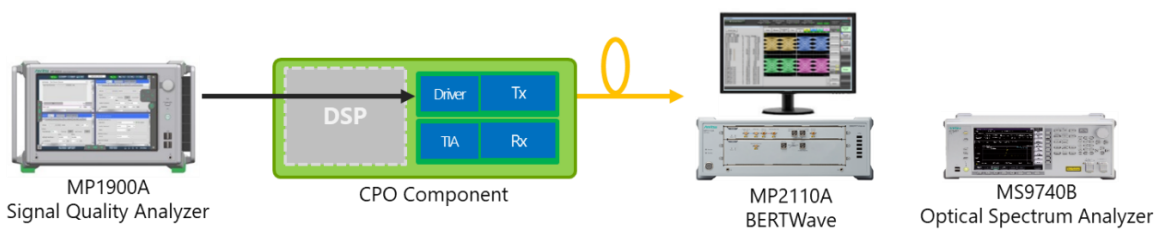
# Co-Packaged Optics (CPO) Measurement Solution

Signal Quality Analyzer-R	MP1900A
BERTWave	MP2110A
Optical Spectrum Analyzer	MS9740B
Network Master Pro	MT1040A

The current “Beyond 400G” optical-interface revolution is getting started, centered on hyper-scale data centers. Optical transceivers supporting data-center optical communications are deploying MSA, targeting implementation of 800 GbE transmissions, and development of 800 GbE OSFP modules is in progress. On the other hand, to achieve even larger and faster integration, investigation into development of optical interfaces using co-packaged optics (CPO) technology has started. CPO packages use multiple silicon photonics (SiP) substrates with the minimum required surface area as optical modules combined with a switch ASIC. The aim is to implement 3.2 Tbps transmissions (8 x 400GBASE/FR4/DR4) per optical module using a 51.2 Tbps switch ASIC expected to be commercialized in future as a new solution to the large problem of high power consumption at data centers managing large-capacity transmissions. Investigation and development of new standards, such as the OIF Co-Packaging Framework IA, Co-packaged Optics Collaboration, COBO MSA, etc., to implement this development is progressing. Anritsu has ideal test solutions for these CPO evaluations.



## Optical Component Tx Measurement

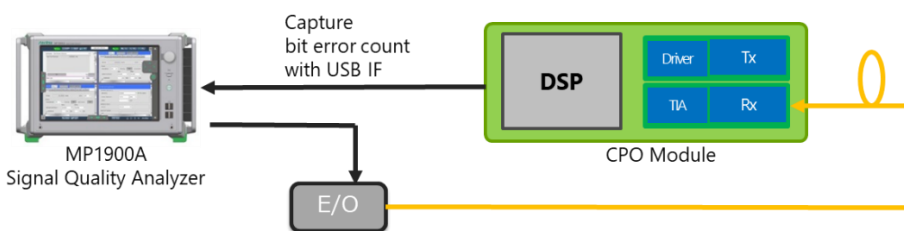


MP1900A: Wideband low-jitter high-quality waveforms using 53 Gbaud PAM4 PPG (8ch max.)

MP2110A: High-speed sampling, high-sensitivity 53 Gbaud PAM4 4ch optical sampling oscilloscope (with built-in 1ch CRU)

MS9740B: Wide-dynamic range, optical spectrum measurement using high-speed sweeping

## Optical Module Stressed Rx Measurement

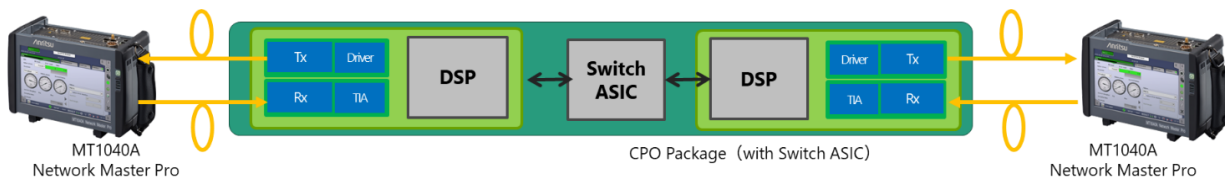


MP1900A: Jitter/Stressed signal impression on 53 Gbaud PAM4 signals

Long test-pattern output (PRBS31 and Scramble-idle) for BER measurement

Jitter Tolerance test (capture DSP bit-error count)

## Ethernet Frame & FEC Measurement



MT1040A: 400 GbE Ethernet test (direct QSFP-DD or OSFP mounting)

Supports FEC Symbol Error margin test required for 400 GbE evaluation

Supports system test including switching performance by impressing Ethernet traffic

## Refer to the following for detailed specifications of each product.

- MP1900A: <https://www.anritsu.com/en-us/test-measurement/products/mp1900a>
- MP2110A: <https://www.anritsu.com/en-us/test-measurement/products/mp2110a>
- MS9740B: <https://www.anritsu.com/en-us/test-measurement/products/ms9740b>
- MT1040A: <https://www.anritsu.com/en-us/test-measurement/products/mt1040a>