

Data Center Interconnect

What Must Test for 400G-ZR

Network Master Pro MT1040A

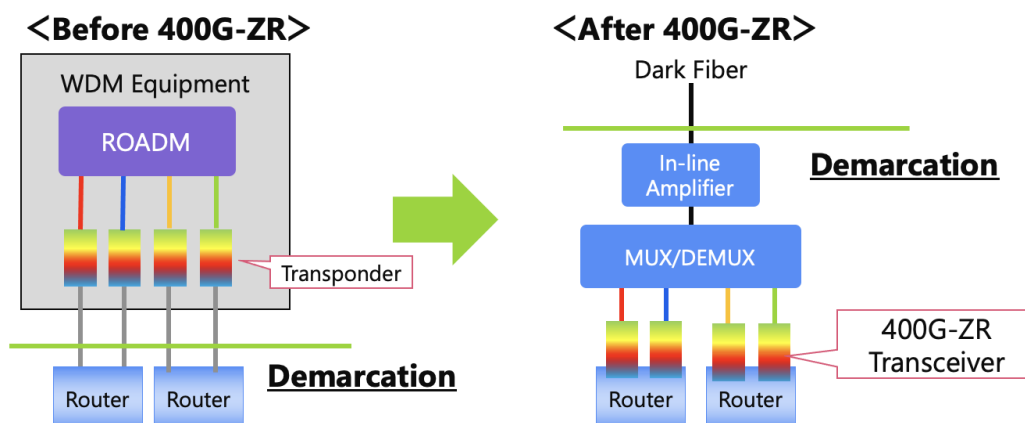
400G (QSFP-DD) Multirate Module MU104014A

The current data center (DC) construction boom is driven by the explosive increase in demand for cloud services. Linking Multi-access Edge Computing (MEC) with 5G requires citywide Metro-network DCs. However, securing sufficient space like hyper-scale DCs is difficult in urban area. Consequently, large-capacity DCs are now being constructed using optical-fiber links between multiple small/medium Metro DCs.

Assuring low-cost optical links between DCs is a key challenge for DC operators and service providers but deployment of 400G-ZR transceivers is one possible solution. With support for optical communications distances of about 100 km, the 400G ZR supports multiplex wavelength transmissions using couplers, helping cut infrastructure deployment costs by eliminating the need for transponders between DCs.

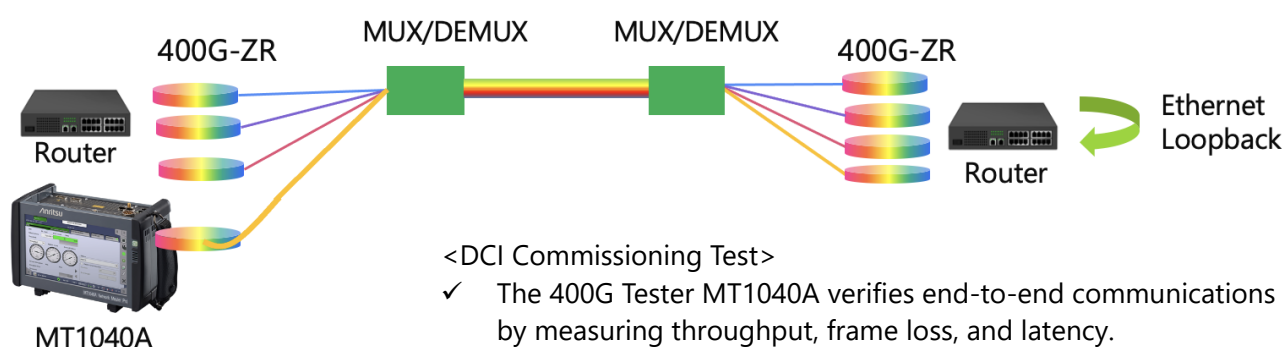
Customer's Challenge

Although the 400G-ZR helps cut deployment costs, there are some resultant tradeoffs. After 400G-ZR is introduced, WDM equipment vendors and communications network operators had no quality guarantees, so data-center operators were forced to assure end-to-end quality themselves.



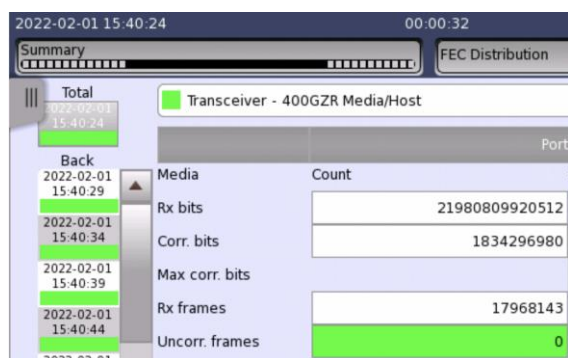
Use Case Example

The MT1040A is an Ethernet tester supporting speeds from 10 Mbps to 400 Gbps. It tests communications quality, such as throughput and frame loss, while imposing traffic loads.

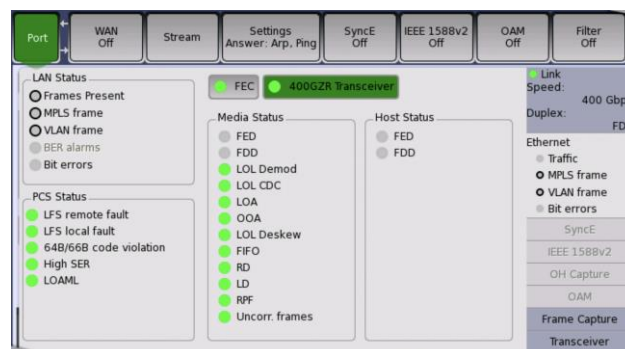


<DCI Commissioning Test>

- ✓ The 400G Tester MT1040A verifies end-to-end communications by measuring throughput, frame loss, and latency.
- ✓ The MT1040A monitors optical signals using 400ZR internal registers.



End-to-end Throughput Test



400G-ZR Alarm Monitor

Ordering Information

Model	Name	Note
MT1040A	Network Master Pro	Main Frame of 400G Ethernet Tester
MT1040A-20	Activate for 400G Dual/100G Quad Option	
MU104014A	400G(QSFP-DD) Multirate Module	400G test module for MT1040A
MU104014A-016	Ethernet 100G Dual Channel	For 100GBASE-SR4/LR4/ER4/DR/FR1
MU104014A-033	Ethernet 400G Single Channel	For 400GBASE-DR4/FR4/LR4/ZR*
MU104014A-034	Ethernet 4x100G N Port BERT	For 400GBASE-XDR4/DR4+

*Use the customer's 400G-ZR. Contact Anritsu's sales representative for a list of Anritsu-certified ZR transceivers