

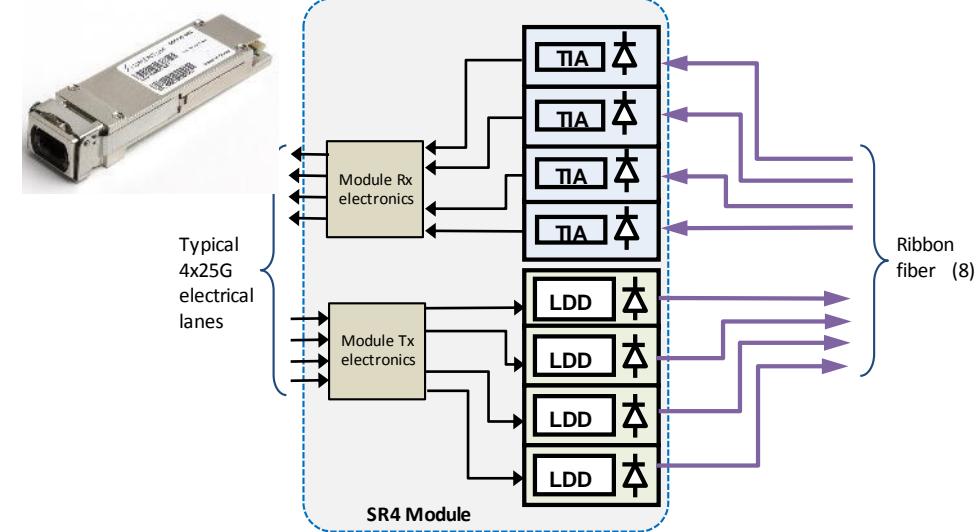
BMP for 4-wavelength PMDs – evidence from 100G-SWDM4 modules

David Lewis, Lumentum

100G SR4 and SWDM4

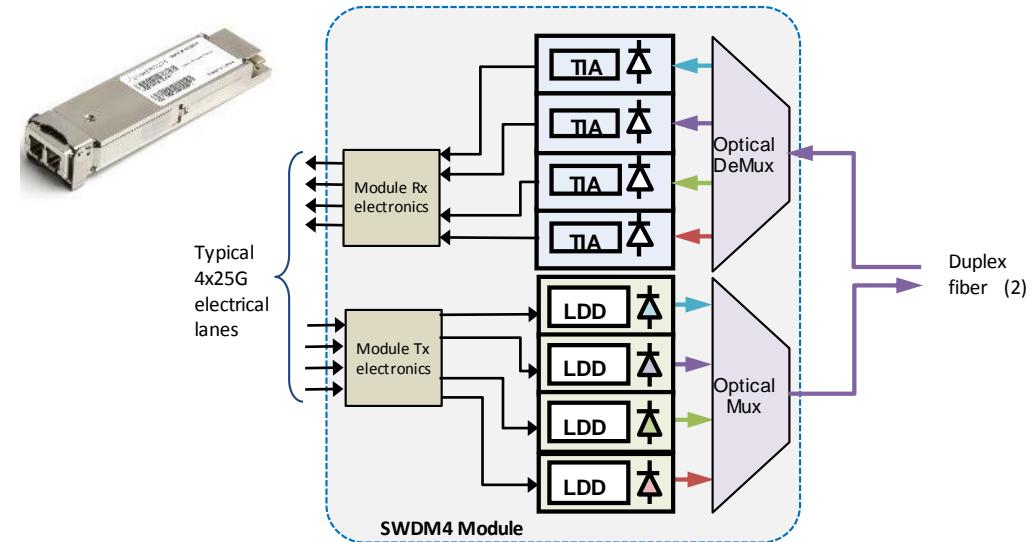
SR4

- $4 \text{ Tx} + 4 \text{ Rx} = 8 \text{ fibers}$ needed per 100G link
 - IEEE standard (100GBASE-SR4) for optical specs
 - IEEE CAUI-4 on electrical side
- Use cases
 - Datacenters, Enterprise where full IEEE compliance required
 - Upgrade from existing SR4 fiber plant or where fiber cost is secondary



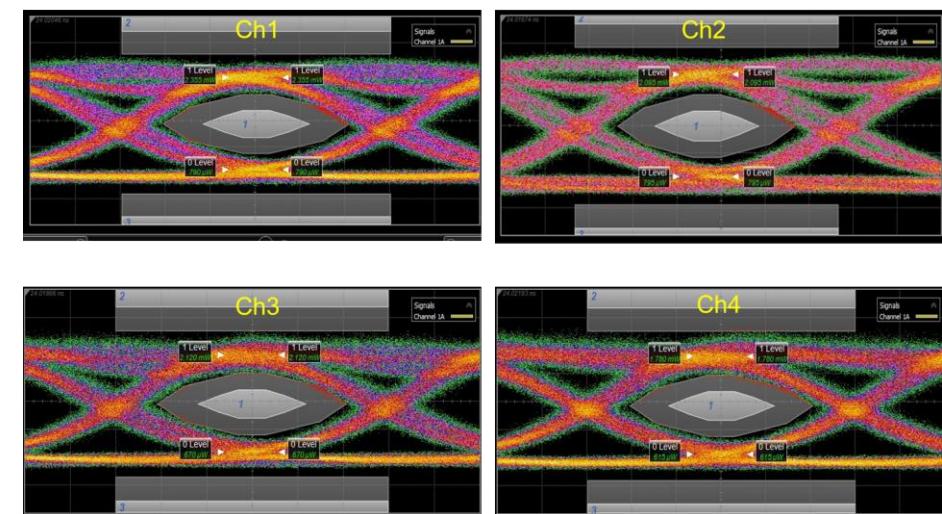
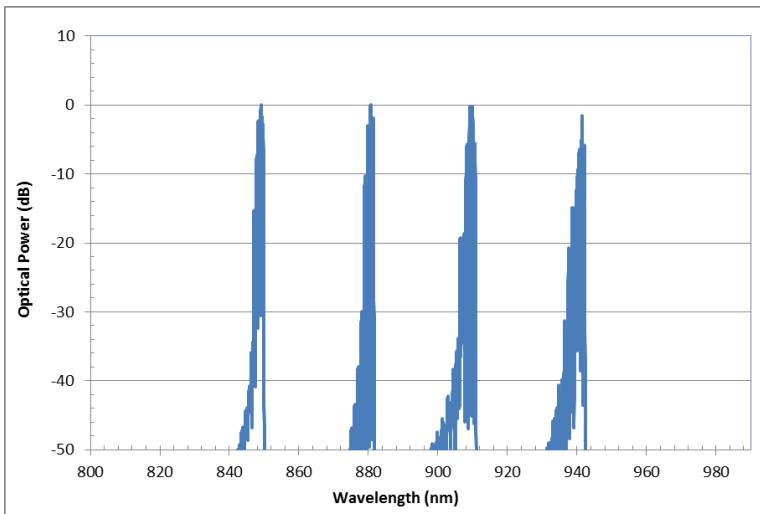
SWDM4

- $1 \text{ Tx} + 1 \text{ Rx} = 2 \text{ fibers}/100\text{G link}$
 - SWDM industry MSA for optical specs
 - IEEE CAUI-4 on electrical side
- Use cases
 - Datacenters, Enterprise with legacy duplex fiber (direct upgrade from 10G)
 - Greenfield where fiber costs matter

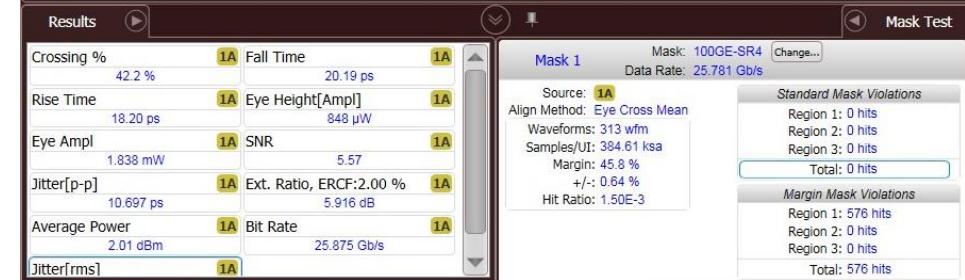
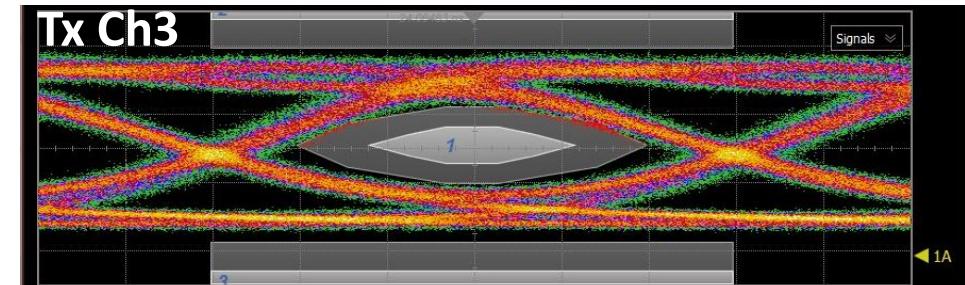
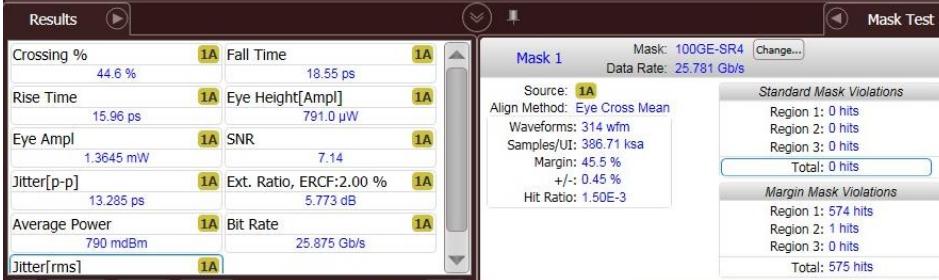
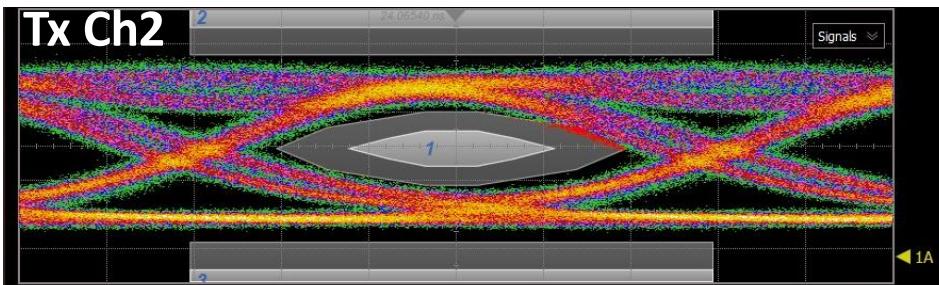
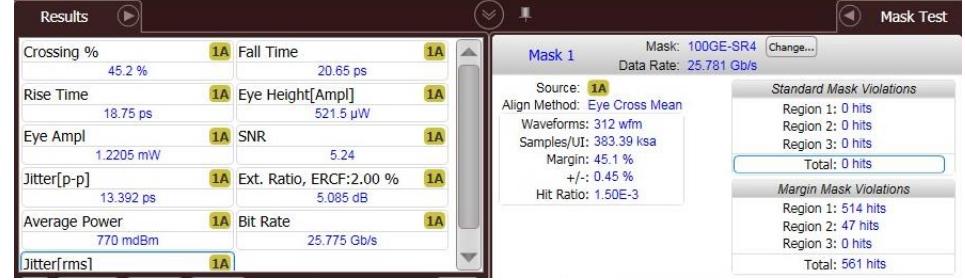
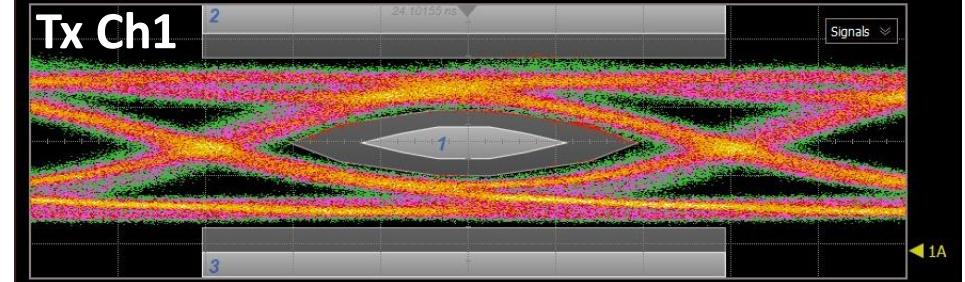
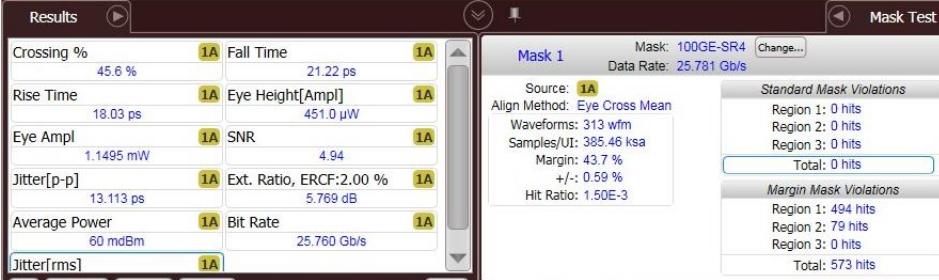
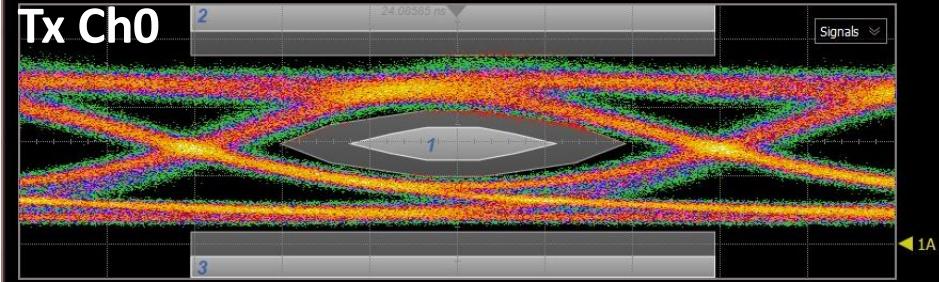


Interoperability

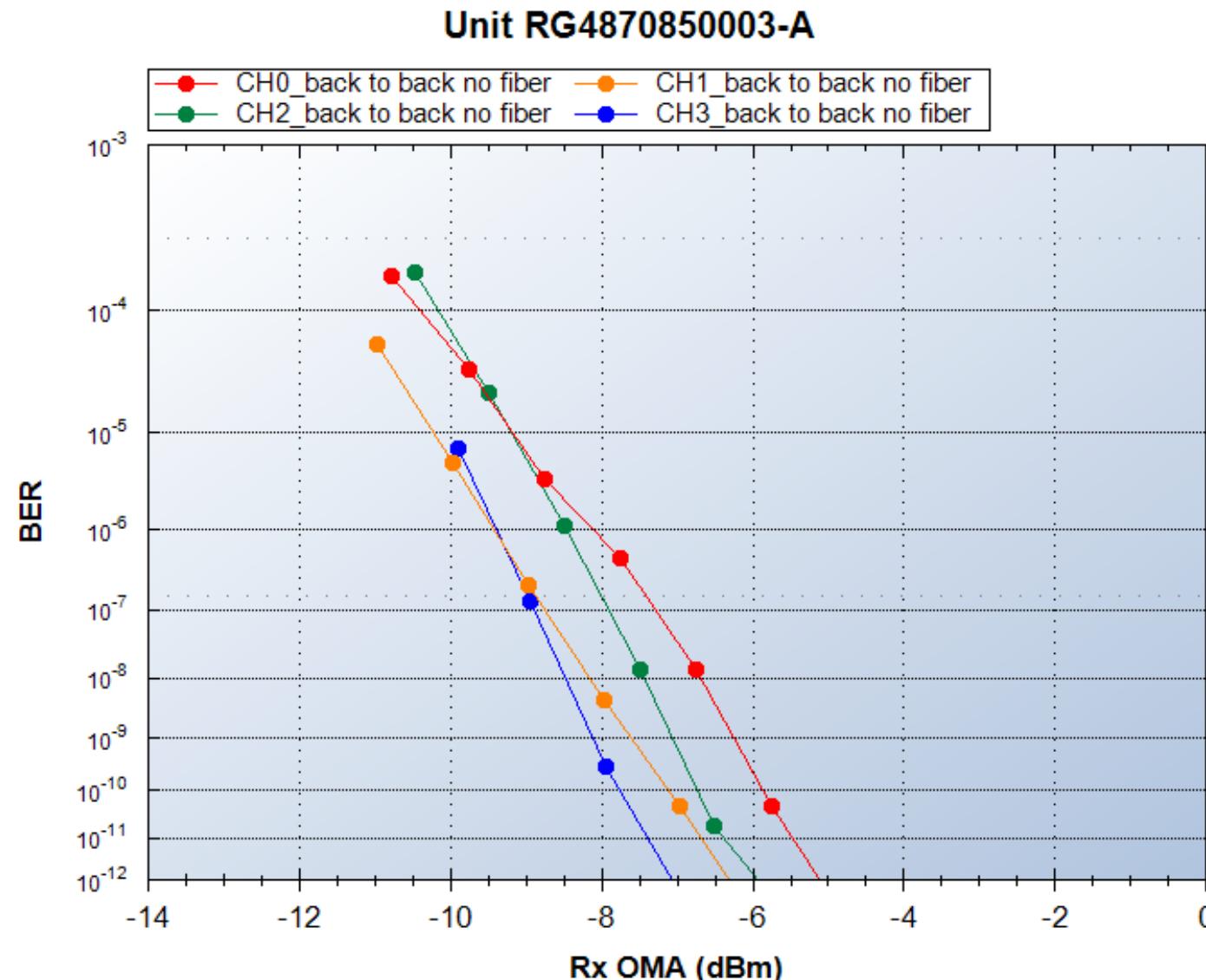
- Demonstrated interoperability with another vendor's SWDM4 module (at ECOC 2016)
 - Error free operation over 100m OM4 duplex MMF



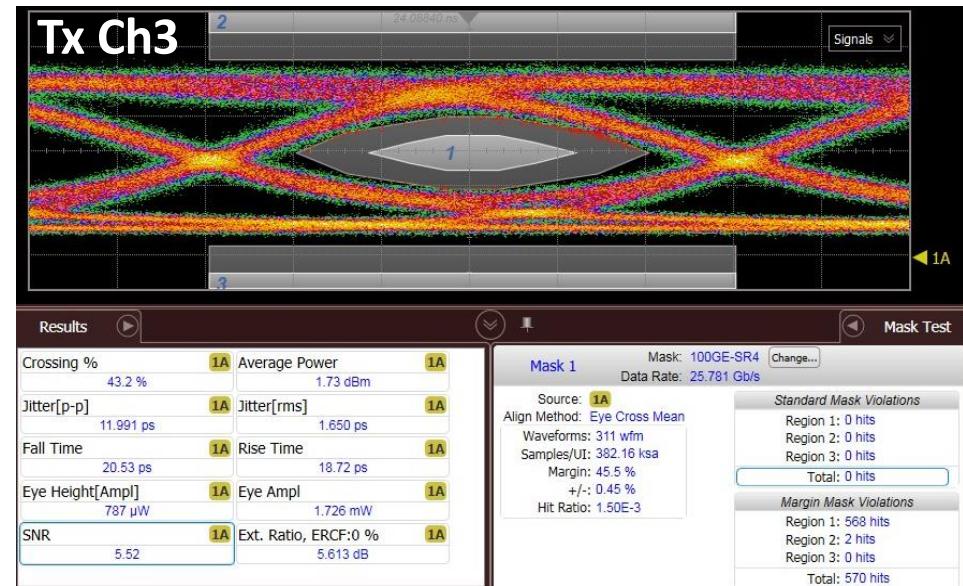
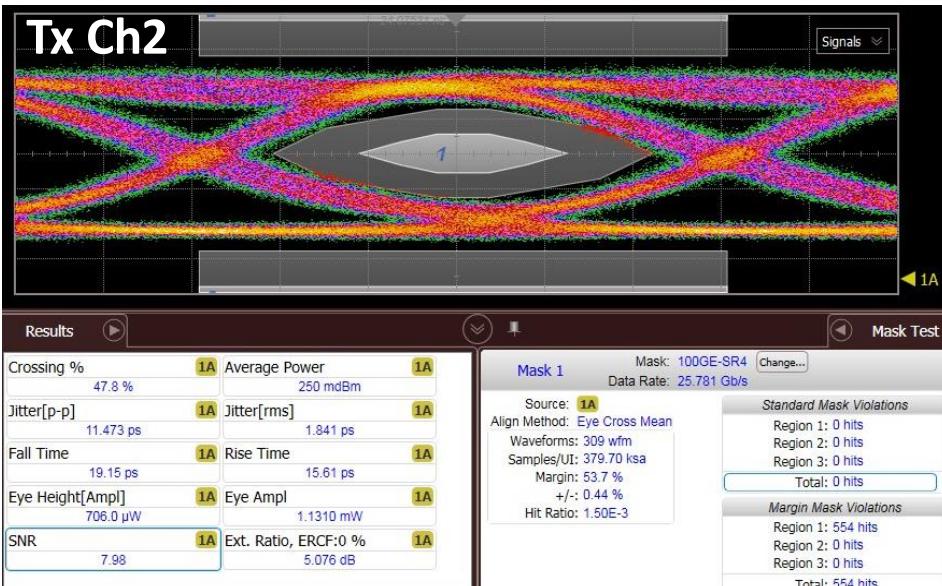
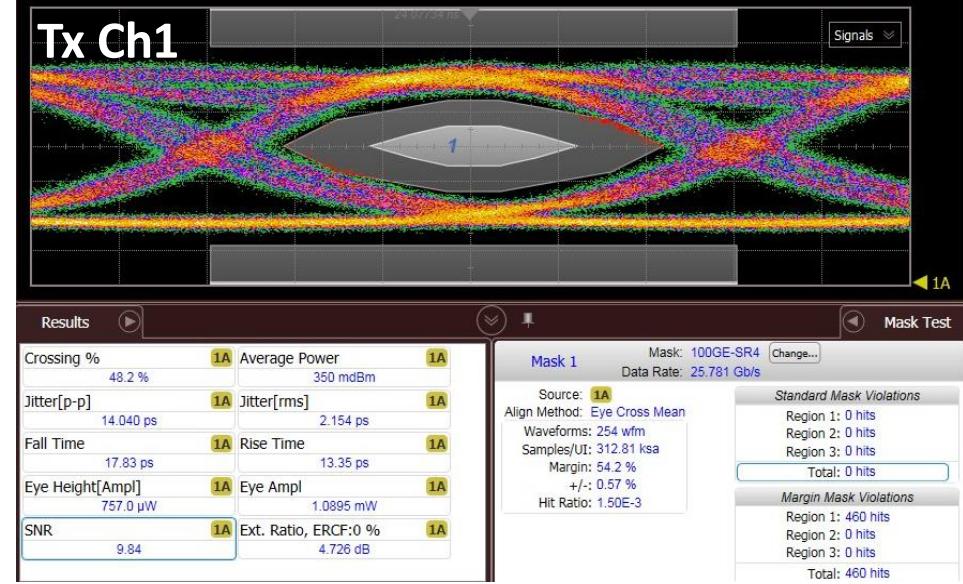
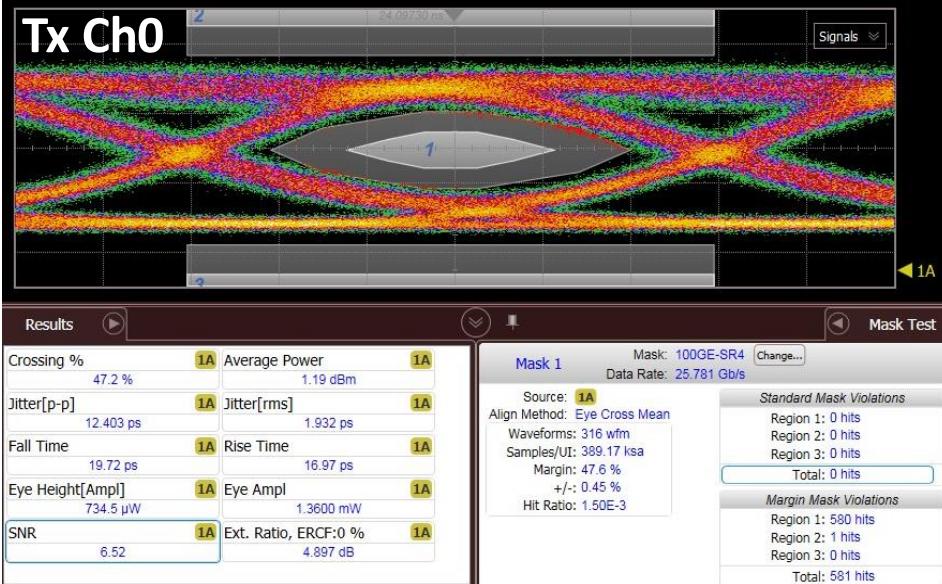
Sample Unit SN RG4870850003-A



Sample Unit SN RG4870850003-A



Sample Unit SN RH0370850008-A



Conclusion and Recommendation

- 100 GbE interoperability demonstrated at ECOC-16
- 2 vendor's modules over 100 m OM4 fiber
- Do not ignore the applications for duplex fiber (200G-SR1.4)

THANK YOU !