Inphi's COLORZ 100G QSFP28 PAM4 Pluggable Optical Module Lowers Cost & Power for Data Center Interconnect (DCI) Applications

Inphi's innovative COLORZ Silicon photonics technology integrates hundreds of discrete components on a single die, resulting in the industry's first low power, cost effective 100G DWDM platform solution in QSFP28 form factor for DCI within an 80km distance. COLORZ is used by our customers to link together regional data centers located within the same metropolitan region using IPoDWDM so they can function efficiently as if they were a single mega data center. It is COLORZ low latency, high density and low power characteristics that make this compelling mega center architecture possible and cost effective.
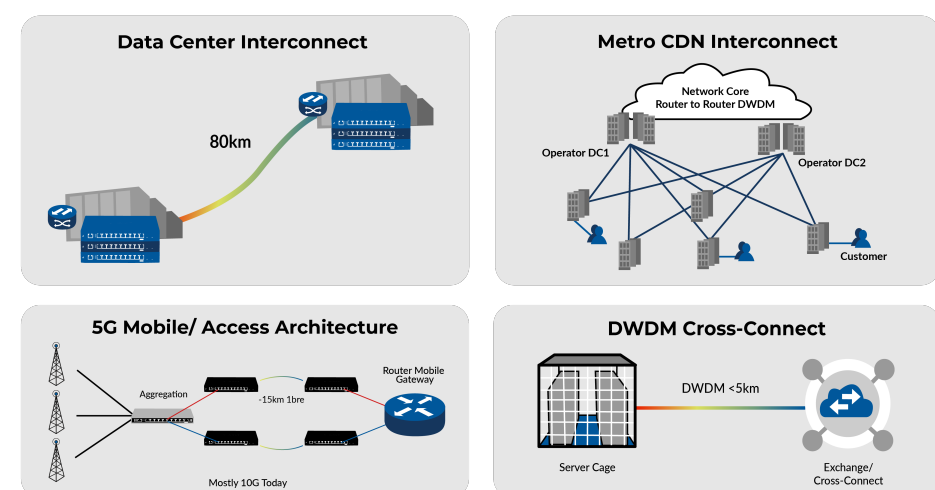

Figure 1: Low cost 100G PAM4 DWDM applications.

1. COLORZ in the data center:

Inphi's COLORZ module fits in a QSFP28 hot pluggable form factor and delivers up to 4Tb/s of bandwidth over a single fiber. This hot-swappable device plugs into any QSFP28 100G Ethernet port of any standard switch or router. COLORZ offers enhanced monitoring and link diagnostic capabilities. Ultimately, COLORZ enables enterprise, service providers and cloud operators to use scalable and easy-to-deploy, lower latency 100G Ethernet services in their networks.

2. COLORZ at the edge:

COLORZ can be used in several network edge applications including, traffic aggregation, broadband/ wireless backhaul and linking central offices to data centers. These applications are ideal for traditional carriers or cable multiservice operators looking to simplify their network architecture and add pay as you grow 100G capacity. COLORZ provides the required connectivity and aggregation for a range of service types from customer locations, or edge offices, to the regional point of presence.
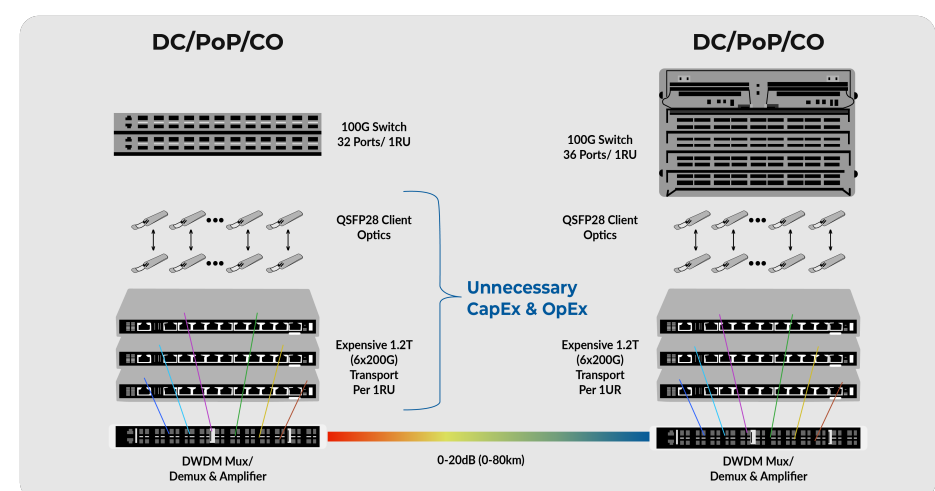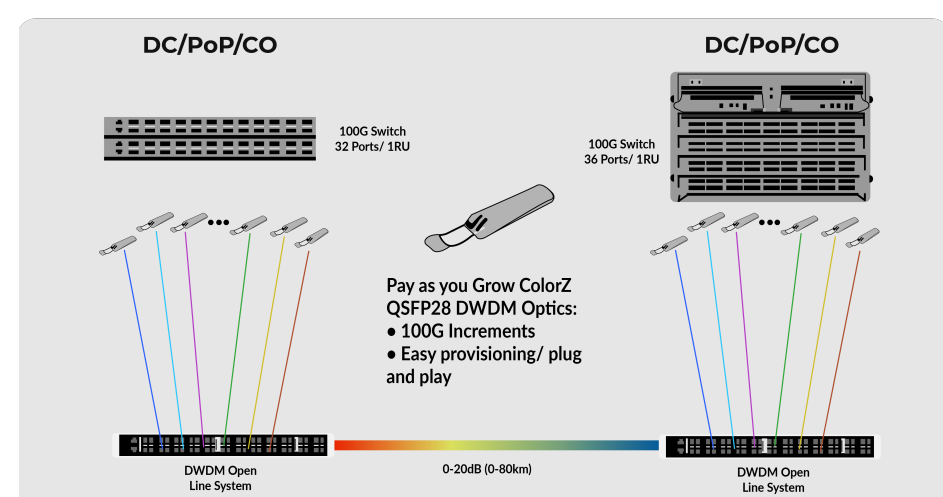

Figure 2: Traditional DCI.

Figure 3: Pluggable DWDM Using PAM4 Technology (IPoDWDM Model). Compared to the Traditional DCI above, IPoDWDM eliminates the expense of transponders and grey optics.