OPENING UP A NEW ERA OF FLEXIBLE NETWORKING

Open Line Systems

In an open optical network, DWDM transceivers may be embedded directly into the switches and routers, and their output signals then multiplexed onto the fiber by passive filters or a separate, active, open line system.

The DCP-M and the M-series active open line systems from Smartoptics work with any combination of embedded transceivers, transponder and muxponder traffic, creating flexible and future proof networks. Using DCP-M and the M-series is exactly like using a passive multiplexer, but unlike a passive multiplexer it monitors the traffic, amplifies the signals for longer distances and can handle higher data rate protocols.

Key features of the DCP-M are:

- Intelligence and amplification in an 8 to 40 channel DWDM multiplexer
- Completely automated optical setup, just like using a passive multiplexer
- Supports direct detect (eg PAM4) and/or coherent DWDM transceivers and/or transponders
- Automatic fiber distance measurement and dispersion compensation setting
- Simple and cost-effective form factor
- Modern management architecture based on REST and CLI APIs
- Easily integrated into any network telemetry systems

Passive Optical Networking

The Smartoptics passive optical filters in multiplexers and OADMs combine and route wavelength channels onto an optical transmission fiber. Producs for both indoor and outdoor use are included in the portfolio.

The range of passive CWDM/DWDM multiplexers and OADM modules allow up to 18 CWDM and 80 DWDM channels to be connected simultaneously over a pair of dark fibers. They are completely protocol transparent and suit applications including 100/10G Ethernet, SDH/SONET, 32/16/8/4/2/1G Fibre Channel/FICON, FTTx and CATV.

The Smartoptics H-Series is a high density, cost-efficient platform for passive optical layer nodes such as CWDM and DWDM multiplexers/demultiplexers and OADMs (Optical Add Drop Multiplexer). Using best of breed components, the H-Series offers the latest generation of solutions to your passive optical networking needs. Special attention has been paid to cost, density and flexibility, resulting in a 1 RU chassis housing a variety of filter modules and giving you up to five times higher packaging density than previous solutions. The H-Series is fully compatible with the ITU optical grid and interconnects seamlessly with Smartoptics transponder and muxponder product lines as well as with other vendors' products.

Transponders

In configurations where it is not feasible or preferred to embed

the transceivers directly in the switch, or when a demarcation point in an operator's network is needed, the Smartoptics DCP family of transponders is the ideal product for terminating the optical layer. At the heart of the platform is the DCP-2, a 1U chassis that houses two DCP modules.

DCP-101 and DCP-108 are low power 100G transponder modules with front to back cooling. They have a QSFP28 client port(s) that accepts all standard transceiver types. DCP-101 is a

single transponder for coherent 100G transmission and DCP-108 eight independent transponders to convert client signals to direct detect 100G DWDM (PAM4). DCP-1610 is a high-density, multi-channel multi-rate transponder module offering independent xWDM transponders suitable for 40/10/1G Ethernet and 16/8G Fibre Channel transport. The channels are independent of each other and there are no restrictions on combinations of traffic. DCP-1610 offers additional value add features such as OTN forward error connection and Layer 1 encryption (AES 256).

Optical Transceivers

Smartoptics offers a full range of pluggable, optical transceivers

for rates from 100MB to 400G, in all applicable form factors (QSFP, CFP, XFP, SFP) and for Grey, CWDM and DWDM use.

The special Brocade Collection and Cisco Collection comprises a family of 32G/16G/8G DWDM Fibre Channel transceivers certified for embedded use by Brocade and Cisco. These enables lower cost solutions for FC SAN over distance (between data centers) compared with traditional DWDM systems.
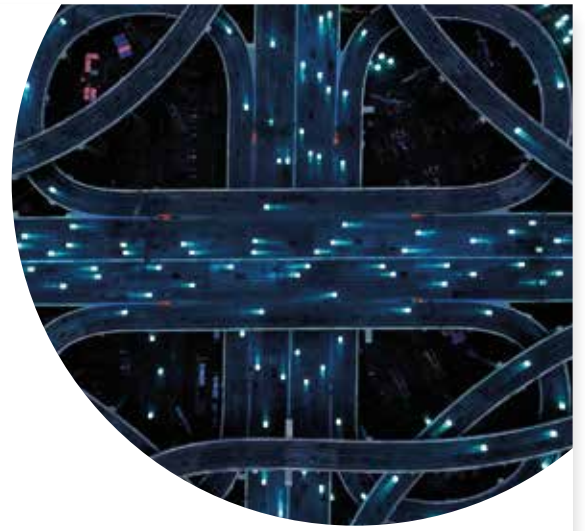
Dave McGeehan
dave.mcgeehan@firstdistribution.com

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Epsidon Technology Holdings