Mini 100G OTN Platform

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C-DOT

In the present era of burgeoning data applications and consequently ever increasing demand of bandwidth, it becomes a challenge to optimize the transport network. Data Centres, Business parks, Large industrial complexes etc. generate large amount of traffic which needs to be transported to some remotely located hub e.g. DWDM node . In such situations, a telco faces fourfold challenge. First , different entities may generate different types of traffic following different protocols; Second, it is not commercially viable to put a DWDM node at the business entity itself; Third, it is important to save on costs of laying separate fiber for each user; Fourth, OPEX to maintain such networks must be minimal.

To particularly address business segment of smart cities, IT parks, Industrial Complexes, Inter City Traffic etc., C-DOT introduces Mini 100G OTN Platform, which functions as an aggregator device for various 10G client streams coming from separate business entities and delivers 100G data to the core network in a single DWDM channel. It not only offers ease of deployment, occupies lesser self space & consumes low power, but also optimizes on the high cost of laying fiber for each individual user. The solution benefits incumbent telcos through upgradation of speed over the existing dark fiber itself. Further, this platform is capable of serving multiple applications and protocols.

Main Features:

- ✓ Multi Protocol 100G Muxponder
- ✓ 10G Client Interfaces (10 Nos.) for SDH/SONET, Ethernet, Fiber Channel etc.
- ✓ Reach of 50Km without mid-span amplifiers
- ✓ Pluggable optical modules on Client Interfaces
- ✓ 1+1 Fiber Redundancy
- ✓ ITU-T G.709 Compliant System
- ✓ Easy Maintenance with NMS/EMS systems

Applications:

- ✓ This system presents modular and cost effective way of quickly rolling out telecom services in Greenfield projects like Smart Cities, IT/Business Parks, Campus Enterprise Networks, Data Centres etc. The solution fits perfectly for MAN Edge Layer Transport as well as Core transport Networks.

Technical Specifications

Main Features:

- ✓ ITU-T G.709 Compliant System
- ✓ 10G Client Interfaces (10 Nos.): OTU2/1e/2e/1f/2f 10GE LAN, FC-800, FC-1200, %G/10G GDPS, CPRI up to 9.8G, OC-192/STM-64 with SFP+ interface
- ✓ 100G OTU-4 Line Interfaces: LC/PC, Full C-band tunable (50GHZ spacing) single colour wavelength, 50Km reach
- ✓ FEC to achieve Net Coding Gain 8dB
- ✓ Management Interfaces: Gigabit Ethernet on SFPs/ Copper
- ✓ Ext. Synchronization: 2048KHz, ToD/ 1bps
- ✓ Environmental conditions: Category B2
- ✓ Dual Redundant -48V Power Supply, 225 Watts (Typical) power Consumption
- ✓ Dimensions: 482mmX393.6mmX86mm (2U)

Management Interfaces

- ✓ IPv4 and IPv6 compliant interfaces LCT/EMS: GE interface
- ✓ Remote TE management using OTN OH bytes for flexible and concurrent management
- ✓ Security: Multiple user creation, multiple user types, command logging

Protection

- ✓ Line and Client protections Supported (1+1 Fiber Protection)

Performance Management

- ✓ Enhanced PM types: Continuous, Schedule, Dump and Online
- ✓ History collection of PM data

Fault Management

- ✓ Alarm monitoring of all optical interfaces
- ✓ Alarm suppression after user's acknowledgement
- ✓ History collection of FM data

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