

Double 10G Lite Transponder

A versatile 10 Gigabit Transponder

Key benefits:

- Compact and cost-effective; two Transponder functions in one plug-in unit
- Multi-Service, transparent transport of 10GbE-LAN, 10GbE-WAN, STM-64, OC-192, OTU-2, 8G & 10G Fibre Channel traffic formats
- Multi-functional plug-in unit. Each Transponder can also be used as a Regenerator function
- Technology agnostic. Pluggable transceivers enable usage in CWDM as well as DWDM networks
- Ultra Low Latency
- Low Power Design ensures low total cost of ownership

The Double 10G Lite Transponder (TPD10G-L-BU) is a powerful part of Transmode's TM-Series platform enabling optimized and cost efficient transport networks based on CWDM and DWDM technology.

Optimized for Metro/Access applications

The Double 10G Lite Transponder is a complementary product to the high-end 10Gb/s Transponders in the TM-Series portfolio. The "Lite"-extension indicates that the functionality targets applications where features such as Forward Error Correction (FEC) and embedded management channels are not required. The unit focuses on providing a cost-effective solution for transport of 10G as well as 8G services within metro/access applications.

Multi-purpose and Multi-technology

The usage of pluggable XFP transceivers enables the TPD10G-L-BU to be used in CWDM as well as DWDM configurations for Ethernet, SDH/SONET, OTN and SAN applications. The unit also supports tunable XFP's which further enhances the flexibility and reduces the Total Cost of Ownership (TCO). The tunable XFP supports all 80 channels within the DWDM C-band.

Also via special DWDM and CWDM XFPs operating at 8Gb/s, the new 8G Fibre Channel format can be supported in both CWDM and DWDM networks.

The TPD10G-L-BU can be used as a translator between CWDM and DWDM networks as shown in figure 1.

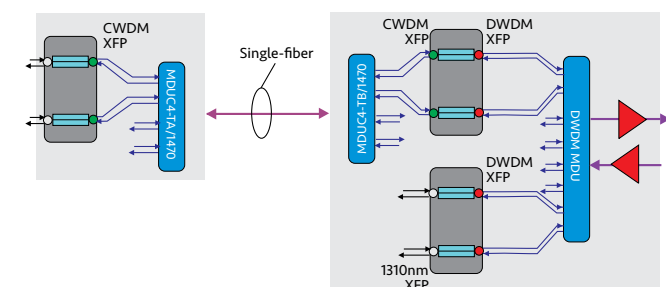


Fig. 1 Transponder and regenerator configurations

In the configuration example, the TPD10G-L-BU is used in a CWDM collector node as a Transponder. In the hub node the unit is translating the CWDM channels onto a DWDM network simply by using corresponding XFPs.

Resilience options

The unit can be configured into a line protection or equipment protection configuration via a passive coupler as shown in figure 2.

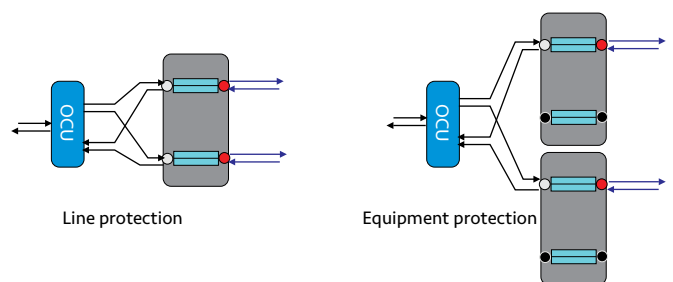


Fig. 2 Protection configurations

Protection switching is performed in less than 50ms.

Tailored Network Element options

The TPD10G-L-BU Transponder can be mounted in any of the TM-Series chassis options;

- As a self-managed Network Element in a 1U TM-101/102 chassis
- As one of many traffic units in a TM-3000 (10U) or TM-301 (3U) chassis

This enables a tailored setup depending on current and future capacity needs of the site.

In the TM-101/102 option, the TPD10G-L-BU initiates the complete Embedded Node Management (ENM) including a web server on the on-board micro processor. This enables local management simply by connecting any PC or work station and launching a standard internet browser.

Ultra Low Latency

The TPD10G-L-BU has less than 5 nanoseconds latency. This makes it ideally suited to e.g. SAN or Ethernet applications where latency can be a crucial factor, such as services for financial institutions, video distribution and LTE backhaul.

Low Power Design

A fully equipped TPD10G-L-BU Transponder unit consumes less than 18W. Low power consumption in combination with a small footprint reduces site costs and enables more capacity to be handled at sites with restrictions on power consumption, cooling and space.

Technical specifications:

Supported traffic formats	10GbE LAN, 10GbE-WAN, Sync-10GbE (G.8262/Y.1362), STM-64/OC-192, OTU-2, 8G FC, 10G FC
Layer-1 performance monitoring	Loss Of Optical Signal, Loss Of Sync, Collected every 15min/24h and presented according to G.784/G.826 using ES, SES etc
Protection	Line/Equipment protection via OCU units. Non-revertive switching <50ms
Latency	Max 5ns
Power consumption	Max 18W in Transponder mode (fully equipped with client and DWDM XFPs)
Interfaces	Client interfaces: XFP MM, SM @ 1310nm/1550nm versions Line interfaces: 10G XFP 40km/70km CWDM (up to 8 channels) or 80km DWDM (up to 40 channels with fixed XFP's, up to 80 channels via Tunable XFP) 8G XFP CWDM and DWDM for 8G Fibre Channel

The specifications and information within this document are subject to change without further notice. All statements, information and recommendations are believed to be accurate but are presented without warranty of any kind. Contact Transmode for more details.

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