

# 7900/01 10G Transponder

*A versatile and true plug-and-play Transponder*

### Key benefits:

- True plug and play with automatic protocol discovery for easy and fast installation
- Transparent transport of 10GbE LAN, 10GbE WAN, STM-64/OC-192, OTU-2, 8G FC and 10G FC services
- Multi-functional plug-in unit. Same hardware can be used as Muxponder and Regenerator
- Technology agnostic. Pluggable transceivers enable usage in CWDM as well as DWDM networks.
- Support for Tunable XFP
- Easy fault location through loop-back on both client and line interfaces
- Low Power Design ensures low total cost of ownership

The 7900/01 Transponder is a powerful part of Transmode's TS-Series platform enabling optimized and cost efficient transport networks based on CWDM/DWDM technology.



### Optimized for Metro/Access applications

The 7900 Transponder is an extremely powerful device for transport of any 10 Gigabit signal (9.95 - 11.09Gb/s) within enterprise and/or metro/access networks.

The use of pluggable optics (XFPs) enables the unit to be used in both CWDM access networks and amplified DWDM networks. 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 7900 is based on Transmode's Intelligent WDM (iWDM™) concept. iWDM will, for example, automatically detect signal format and automatically provision the unit.

### Multi functional for full flexibility

The 7900 can be equipped with CWDM or DWDM transceivers on both client and line interfaces providing a regenerator function for cascaded networks, see figure below. This flexibility reduces the Operational Expenditure (OPEX) as the same plug-in unit can be used for multiple purposes.

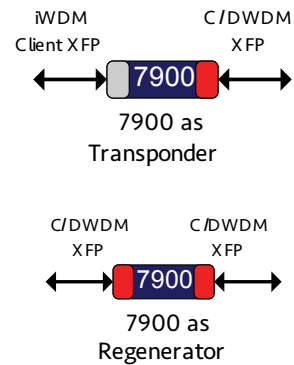


Fig. 1 The 7900 can be configured into Transponder or Regenerator mode

The regenerator mode can also be used to convert from a CWDM to a DWDM network by using corresponding transceivers (XFPs) on the interfaces, see figure below.

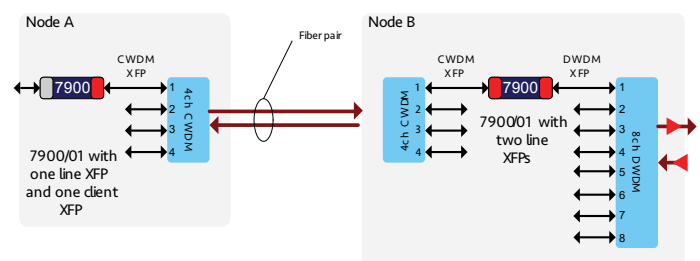


Fig. 2 The 7900 can be used for conversion from CWDM to DWDM networks

## Easy fault location

Loop-back is provided on both client and line interfaces. Loop-back allows easy fault location in e.g. cascaded links. A test signal is looped-back to its source at an intermediate node to check end-to-end continuity. To further add to easy fault localization features, the received and transmitted optical power level are monitored at both line and client interface.

## Embedded Management

Networks with the 7900 are managed on a Network Element (NE) basis via the Embedded Node Manager (ENM) and on network level via the Transmode Network Manager (TNM).

## Tailored Network Element options

The 7900 Transponder can be mounted in any of the active TS-Series chassis options;

- As one network element in a 1U TS-100 chassis
- As one of many traffic units in a 6U TS-1100 chassis

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

## Low Power Design

A fully equipped 7900 Transponder unit consumes less than 11W. 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:

<b>Supported traffic formats</b>	STM-64/OC 192 10GbE LAN 10GbE WAN OTU-2 10G Fibre Channel 8G Fibre Channel
<b>Power consumption</b>	Max 11W
<b>Misc features</b>	Line and client loop back Automatic discovery of traffic format
<b>Operational modes</b>	1x Transponder 1x Regenerator mode
<b>Interfaces</b>	Client interfaces: XFP MM, SM @ 1310nm/1550nm Line interfaces: 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.

[www.transmode.com](http://www.transmode.com)