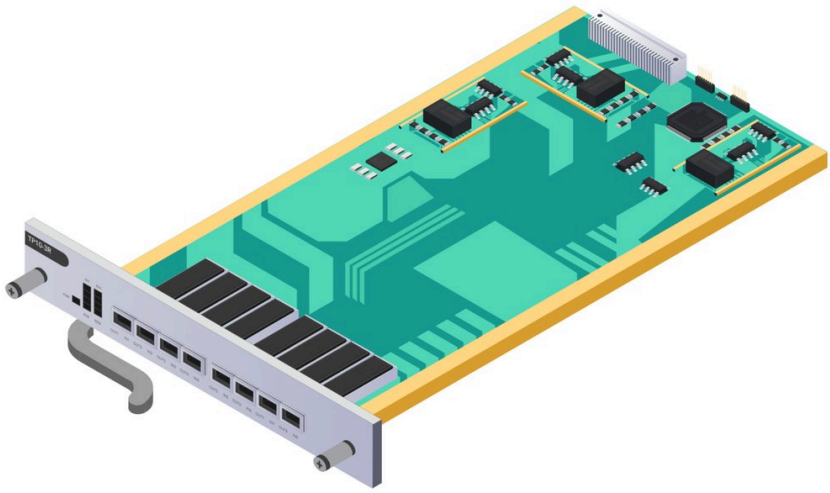
nex·gen

OTN SYSTEMS WDM PLATFORMS

1.25G-11.3G Multi-Service 3R Transponder (4-Channel) for WDM Chassis

In this multi-service 3R transponder, a dedicated on-board CDR chip performs genuine 3R regeneration, re-amplification, re-shaping and re-timing, on each of four independent 1.25G-11.3G channels before converting them to matching WDM line wavelengths, and reverses the process just as easily. The same eight SFP+ ports can be reconfigured as 8 independent unidirectional channels with interface-level loopback, and the card can also run in pure line-to-line 3R relay mode. The single-slot card fits across the OTN WDM chassis range.



HIGHLIGHTS

True 3R regeneration

A dedicated on-board CDR chip re-amplifies, re-shapes and re-times every channel, not just the pluggable optics, for genuine end-to-end signal clean-up.

Multi-service, multi-rate

Four independent channels carry GE/10GE, 1/2/4/8/10G FC, STM-16/64 or CPRI-2/3/6/7, anywhere from 1.25G to 11.3G.

Flexible port configuration

Runs as 4 bidirectional channels, or reconfigures as 8 independent unidirectional channels with interface-level loopback.

Two operating modes, one card

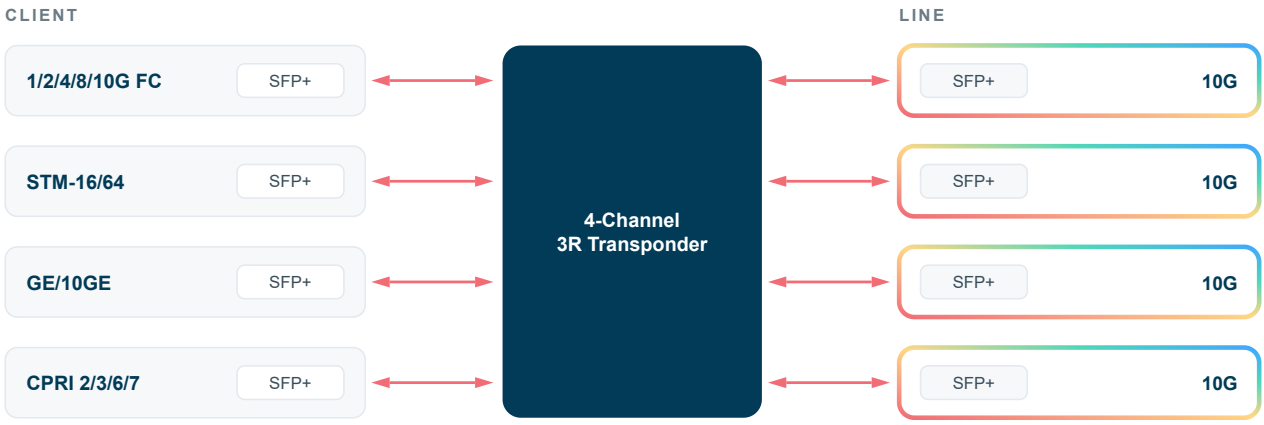
Wavelength conversion between client and WDM line, or line-to-line 3R relay, using the same SFP+ slots.

Compact and power-efficient

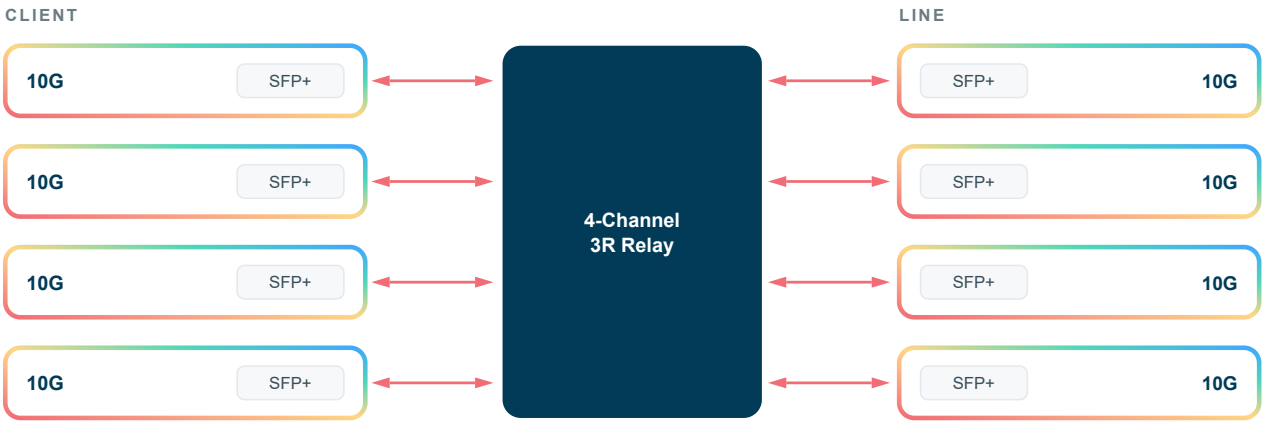
Occupies a single slot across the full OTN WDM chassis range, drawing just 16 W with optical modules fitted.

FUNCTIONAL STRUCTURE

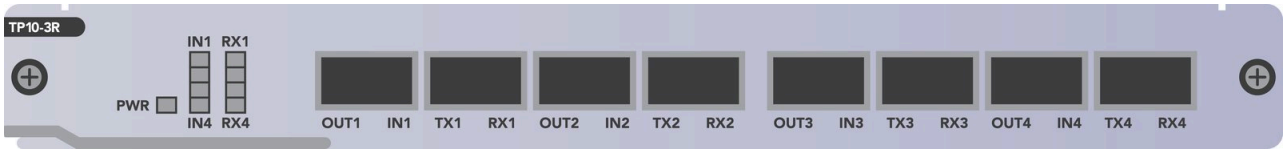
Line mode (wavelength conversion)



Relay mode (3R line-to-line regeneration)



FRONT PANEL



FORMAT



CARD FOR WDM CHASSIS 1 SLOT

SPECIFICATIONS

CLIENT SIDE	
Interfaces	4 × SFP+, pluggable (or 8 × unidirectional with interface-configured loopback)
Supported Services	GE, 10GE · 1/2/4/8/10G FC · STM-16/64 · CPRI-2/3/6/7
Rate Range	1.25G to 11.3G per channel
LINE SIDE	
Interfaces	4 × SFP+, pluggable
Wavelength Grid	CWDM 18-wave or DWDM 96-wave @ 50 GHz
3R REGENERATION	
Function	Re-amplification, re-shaping, re-timing (dedicated on-board CDR)
Applies to	Both Line mode and Relay mode
OPERATING MODES	
Line Mode (Wavelength Conversion)	4× bidirectional or 8× unidirectional service access, converted to matching WDM line wavelengths
Relay Mode (3R Regeneration)	4× bidirectional or 8× unidirectional line-to-line relay, with full 3R signal clean-up
OAM & MONITORING	
Loopback	Line-side and client-side
ALS	Automatic laser shutdown / restart on loss of input signal
Performance Monitoring	Optical-module temperature, current, voltage, optical power
MECHANICAL & POWER	
Slots Occupied	1 (compatible with all OTN WDM chassis)
Maximum Power Consumption	16 W (with optical module)

ORDERING INFORMATION

NAME	1.25G-11.3G Multi-Service 3R Transponder (4-Channel) for WDM Chassis
DESCRIPTION	Multi-service 3R transponder, 1 slot. On-board CDR chip performs true 3R regeneration (re-amplify, re-shape, re-time) on four 1.25G-11.3G channels (GE/10GE, FC, STM-16/64, CPRI), converting to matching WDM line wavelengths or relaying line-to-line; 8x SFP+ ports, reconfigurable as 8 unidirectional; under 16W with optical modules.
PART NUMBER	**WDM-TP-4x10G-4x10G-3R-1S**

© Nexgen A/S, OTN WDM platform

nexgen.eu · customer.service@nexgen.eu