

## Features

- Receiver type 2R (receive and retransmit)
- Bit rate 2.125 Gb/s
- Optical wavelength converter:
  - Any optical communications wavelength input
  - 1550nm DWDM ITU-grid output
- Hot plug in/out

## Digital Transponder



The DX4515 Digital Transponder is a component of Aurora's Integrated Digital Transport System designed to convert any communications wavelength input to a 1550nm ITU grid output. The DX4515 is a 2R type transponder. It enhances the reach of Aurora's Digital Transceiver DT4000 series modules, enabling applications that require communication through fiber spans up to 200 km long.

The DX4515 is designed as a plug-in module for Aurora's NC4000 Series Optical Nodes. Aurora Networks supplies the DX4515 either with a fully configured and tested node or as a module for existing customers of NC4000 Series nodes desiring to upgrade to digital return and/or Ethernet transport capability.

# DX4515

## Product Specifications

### Physical:

- Dimensions:  
4.0" L x 2.25" H x 2.25" W (10.2 cm x 5.72 cm x 5.72 cm)
- Weight:  
0.6 lbs (0.3 kg)

### Environmental:

- Operating temperature range:  $-40^{\circ}$  to  $+85^{\circ}\text{C}$  ( $-40^{\circ}$  to  $185^{\circ}\text{F}$ )
- Storage temperature range:  $-40^{\circ}$  to  $+85^{\circ}\text{C}$  ( $-40^{\circ}$  to  $185^{\circ}\text{F}$ )
- Humidity: 5% to 95% non-condensing

### Optical Interface:

- Optical connectors:  
SC/APC (Input and Output)

### Power Requirements:

- Input voltage:  
 $24 V_{\text{DC}}$  (180 mA max),  $5 V_{\text{DC}}$  (250 mA max)
- Power consumption:  
5.5 W max

### General:

- Hot plug-in/out
- Transponder type: 2R
- Bit rate: 2.125 Gb/s

### Optical Interface:

#### Output:

- Output power:  $5.25 \text{ dBm} \pm 0.75 \text{ dB}$  (nominal)
- Wavelength stability:  $\pm 0.1 \text{ nm}$
- Dispersion limit: 200 km (SMF-28)

#### Input:

- Wavelength: 1300 nm–1600 nm
- Optical power input range:  
 $P_{\text{IN min}}$ :  $-15 \text{ dBm}$   
 $P_{\text{IN max}}$ :  $-3 \text{ dBm}$
- Input return loss: 30 dB

### Status Indicator LEDs:

- POWER = Green (power supplied to module) or Red (fault)
- LOS = Red (input signal lost)
- Laser Failure = Red (upon failure)

### ITU Channel Plans:

Aurora Networks supports DWDM network architectures with a variety of products on the standard DWDM ITU Grid (ITU-T G.694.1). For more complete description of available DWDM ITU Grid channels and Aurora's partitioning into convenient logical channel groups for DWDM mux and demux applications, please refer to the Aurora Networks DWDM ITU Grid Channel Plan data sheet.

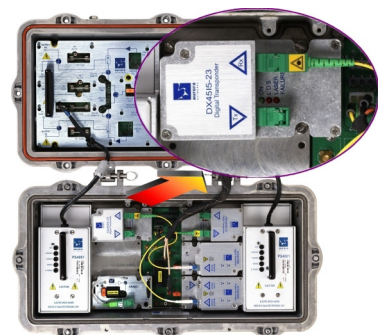
## Ordering Information

D X 4 5 1 5 - \* \* - A S

Digital Transponder

\*\* = DWDM ITU Channel Number (20, 21, 22, . . . or 59)  
(Reference Aurora Networks ITU Channel Plan Data Sheet)

AS = SC/APC Connector



### Corporate Headquarters

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