



SFP-TR10-TD15xx.xx-ZR

Ultra extended reach DWDM 10 gigabit Optical transceiver

User manual

Rev. A

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Nevion
Nordre Kullerød 1
3241 Sandefjord
Norway
Tel: +47 33 48 99 99
nevision.com

Nevion Support

Nevion Europe

P.O. Box 1020
3204 Sandefjord, Norway
Support phone 1: +47 33 48 99 97
Support phone 2: +47 90 60 99 99

Nevion USA

1600 Emerson Avenue
Oxnard, CA 93033, USA
Toll free North America: (866) 515-0811
Outside North America: +1 (805) 247-8560

E-mail: support@nevion.com

See <http://www.nevion.com/support/> for service hours for customer support globally.

Revision history

Current revision of this document is the uppermost in the table below.

Rev.	Repl.	Date	Sign	Change description
A	-	2016-02-03	OEH	Initial revision.

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1 Product overview

SFP-TR10-D15xx.xx-ZR is a 10 gigabit SFP+ transceiver that consist of an optical transmitter and an optical receiver. The transmitter is tunable (ie the wavelength is selectable at run-time) and can reach over 80 DWDM wavelengths at 50GHz spacing enabling transport which when used with the 100GHz DWDM filters in flashlink enable 40 signals over one single-mode fiber. It is well suited for mid/long haul applications.

The XFP's have the ability to report information such as signal presence, received signal level, launch power and internal temperature. This information is available in some of Nevia's SFP based products presented through their respective element management system.

Note that the ability to select wavelength needs explicit support in firmware from the product it is plugged into, as well as from the element management system.



SFP-TR10-D15xx.xx-ZR, for illustration

2 Specifications

Power	< 2W, DWDM
Size	SFP+ compliant, dimensions defined by the SFP+ Multi-Sourcing Agreement (MSA).
Control	Multicon Gyda control and status
Operating case temperature	0 to +70 °C

Supported standards

Ethernet	10GBASE-ZR/ZW
Fiber Channel	1200-SM-LL-L 10G
SONET	OC-192
SDH	STM S-64
ITU-T	G.709

Optical input

Connector	LC/UPC single mode
Wavelength	1520nm to 1600nm
Optical budget	22dB
Sensitivity	-23dBm
Overload	-7dBm

Optical output

Connector	LC/UPC single mode
Center wavelength spacing	50 GHz (0.4nm)
Extinction ratio	min 9dB
Power	-1 to +3dBm

3 DWDM wavelength tuning

SFP-TR10-TD15xx.xx-ZR supports over 80 channels in a 50GHz grid.

The table below shows the center wavelengths used in a 40 channel flashlink DWDM. See the manual for the XFP based product that SFP-TR10-TD15xx.xx-ZR will be used with for information about how to select wavelengths. SFP-TR10-TD15xx.xx-ZR supports over 80 channels in a 50GHz grid.

Center Wavelength (nm)					
1530.33	1531.12	1531.90	1532.68	1533.47	1534.25
1535.04	1535.82	1536.61	1537.40	1538.19	1538.98
1539.77	1540.56	1541.35	1542.14	1542.94	1543.73
1544.53	1545.32	1546.12	1546.92	1547.72	1548.51
1549.32	1550.12	1550.92	1551.72	1552.52	1553.33
1554.13	1554.94	1555.75	1556.55	1557.36	1558.17
1558.98	1559.79	1560.61	1561.42		

General environmental requirements for Nevion equipment

1. The equipment will meet the guaranteed performance specification under the following environmental conditions:
 - Operating room temperature range: 0°C to 70°C
 - Operating relative humidity range: <95% (non-condensing)
2. The equipment will operate without damage under the following environmental conditions:
 - Temperature range: -20°C to 85°C
 - Relative humidity range: <95% (non-condensing)

Product Warranty

The warranty terms and conditions for the product(s) covered by this manual follow the General Sales Conditions by Nevion, which are available on the company web site:

www.nevion.com

Appendix A Materials declaration and recycling information

A.1 Materials declaration

For product sold into China after 1st March 2007, we comply with the “Administrative Measure on the Control of Pollution by Electronic Information Products”. In the first stage of this legislation, content of six hazardous materials has to be declared. The table below shows the required information.

組成名稱 Part Name	Toxic or hazardous substances and elements					
	鉛 Lead (Pb)	汞 Mercury (Hg)	鎘 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr(VI))	多溴联苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
SFP-TR10-TD15xx.xx-ZR	○	○	○	○	○	○
O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.						
X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.						

This is indicated by the product marking:



A.2 Recycling information

Nevion provides assistance to customers and recyclers through our web site <http://www.nevion.com/>. Please contact Nevion's Customer Support for assistance with recycling if this site does not show the information you require.

Where it is not possible to return the product to Nevion or its agents for recycling, the following general information may be of assistance:

- Before attempting disassembly, ensure the product is completely disconnected from power and signal connections.
- All major parts are marked or labeled to show their material content.
- Depending on the date of manufacture, this product may contain lead in solder.
- Some circuit boards may contain battery-backed memory devices.