DCM-G652-80

Dispersion compensation module, compensating for 80km of G.652

User manual

Rev. A

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Revision history

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

Rev.	Repl.	Date	Sign	Change description
A	-	2015-12-01	OEH	Initial version.

Contents

1 Product overview

The Flashlink DCM-G652-80 is a dispersion compensation module for 100GHz spaced DWDM (Dense Wavelength Division Multiplexed) signals. The module is a unidirectional, passive and all-optical device, requiring no power supply or control. DCM-G652-80 is typically used with a an EDFA for negating some of the effect of a long G.652 fibre when running 10Gbps over more than about 60km of fibre.

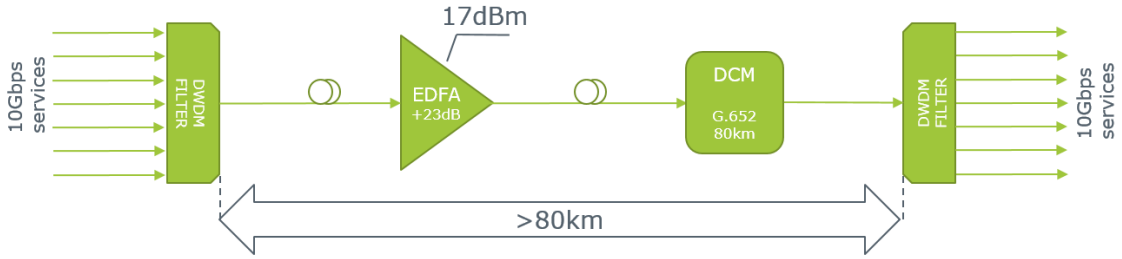

Figure 1: DCM-G652-80 application example with booster EDFA

2 Specifications

2.1 Optical specifications

First channel	196.3THz/1527.216nm
Last channel	191.3THz/1567.133nm
Connector	SC/UPC
Insertion loss	3.5dB max
Insertion loss uniformity	0.7dBm max
Interchannel IL uniformity	0.6dBm max
Channel Spacing	100GHz
Passband	+- 17.5GHz
Compensated length	80km
Dispersion first channel	-1238ps/nm +- 3%
Dispersion last channel	-1473ps/nm +- 3%
Return loss	40dB min
PMD	0.7dB max
PDL	0.3dB max
Operating Temperature	0 – 55 ^{o}C
Storage Temperature	-40 – 85 ^{o}C
Optical Power	300mW max

3 Connections

3.1 Mounting the DCM-G652-80

The DCM-G652-80 must be mounted in a Flashlink subrack. This is done from the rear of the subrack. Do not use force when inserting the DCM-G652-80, once the module's upper rail aligns with the card rail in the subrack, it should slide easily into place. Lock it with 4 M2.5x8mm screws. DCM-G652-80 is fully compatible with both the FR-10-2 and the FR-202 flashlink frames.

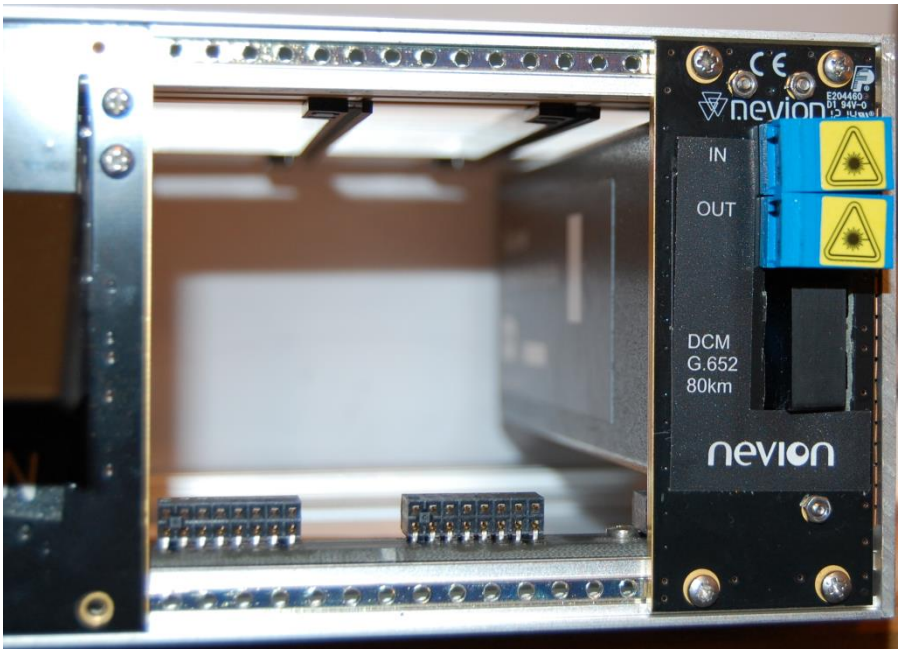

Figure 2: DCM-G652-80 mounted in a Flashlink subrack

3.2 Connection

The DCM-G652-80 has two ports on the backplane, one marked IN and one marked OUT. All operation requires that the light enters the port marked IN and leaves from the port marked OUT. For bi-directional operation, the signals need to be split in two fibres, traditionally named "east" and "west". Each of these must have all the signals going in one direction. This fits well with the operation of the EDFA, which has the same limitation.

See the application example in chapter 1 for an overview.

General environmental requirements for Nevion equipment

1. The equipment will meet the guaranteed performance specification under the following environmental conditions:
   - Operating room temperature range: °C to 50°C
   - Operating relative humidity range: <90% (non-condensing)

2. The equipment will operate without damage under the following environmental conditions:
   - Temperature range: -10°C to 60°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)	镉 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)
DCM-G652-80	O	O	O	O	O	O
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.