# Chromatic Dispersion Compensation Modules

## Overview

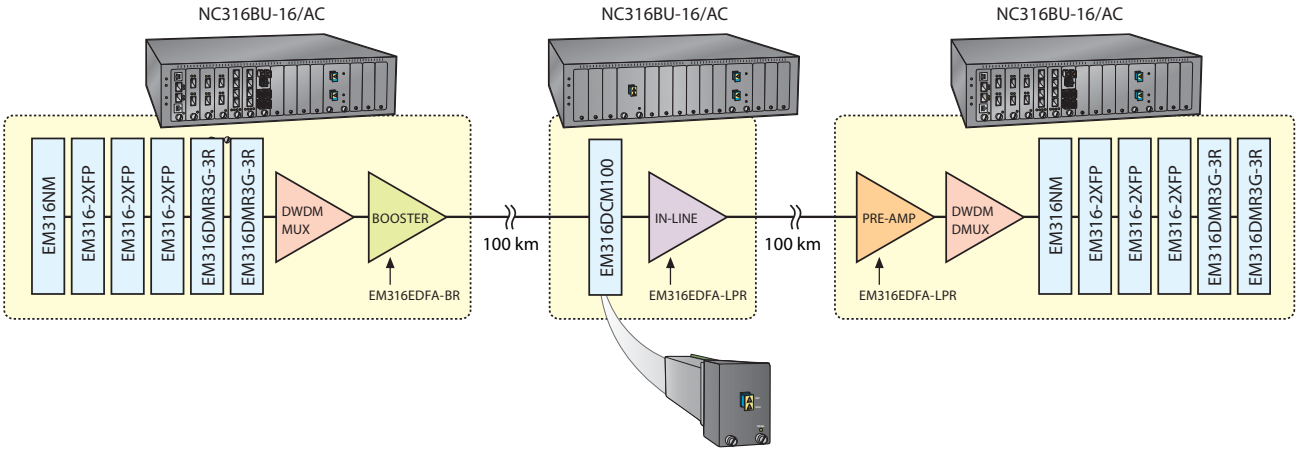
The EM316DCM060 and EM316DCM100 Dispersion Compensation Modules are part of the Fiber Driver® DWDM solution. They are two-slot modules accommodated by either the Fiber Driver two-slot or sixteen-slot chassis. These modules may be operated as passive units in an un-powered chassis or as managed modules with an EM316LNXNM-OT Network Manager (NM) in a powered chassis system.

DCM modules provide fixed chromatic dispersion compensation for high-speed metro core, regional, and extended-haul DWDM networks. Chromatic dispersion is a major distance limiting factor in DWDM networks for protocols exceeding 2 Gbps including 2 and 4 Gbps Fibre Channel, 2.5 and 2.7 Gbps SONET/SDH OC-48/STM16 with or without FEC, and especially networks running 10 Gbps.

The DCMs offer a high dispersion compensation level and a very low insertion loss penalty. They provide negative dispersion compensation over the full C-Band with possible distance extensions of up to 100 kilometers.

## Features

- Dispersion compensation in high-speed extended-haul DWDM networks
- In-line dispersion compensation at network mid-points
- Post-dispersion and pre-dispersion compensation
- Two-slot Fiber Driver module fits 2-slot and 16-slot Fiber Driver chassis
- Powered or passive operation
- Full C-Band coverage
- Low insertion loss under 3.5 dB
- Chromatic dispersion compensation up to 100 km
- Slope-matched SMF28/G.652 fiber
- Increased OSNR and system margins
- Economic solution ideal for single stage amplification
- Cascading support



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## Datasheet

| Physical Specifications | |
|---|---|
| **Operating Temperature Range** | 0°C to 50°C (32°F to 122°F) |
| **Storage Temperature** | -40°C to 85°C (-40°F to 185°F) |
| **Relative Humidity** | 85% maximum, non-condensing |
| **Approximate Dimensions** | 50 mm x 90 mm x 240 mm deep (2" x 3.5" x 9.5" deep) |
| **Approximate Weight** | 544 g (19.2 oz) |
| **Regulatory Compliance** | FCC Part 15 (Class A); IC (Class A); EMC Directive: Emission (Class A) and Immunity; |
| | RoHS Directive; China RoHS; WEEE Directive |

| Optical Parameters | EM316DCM060 | EM316DCM100 |
|---|---|---|
| **Compensated Distance (km)** | 60 | 100 |
| **Dispersion First Channel (ps/nm)** | -929 | -1548 |
| **Dispersion Last Channel (ps/nm)** | -1068 | -1779 |
| **Dispersion Tolerance (%)** | <5 | <5 |
| **Maximum input power (dBm)** | 27 | 27 |
| **Inter-Channel IL Uniformity (dB)** | <0.6 | <0.6 |
| **Return Loss (dB)** | >40 | >40 |

### Ordering Information

| Model | Function | Connectors Port/Link | Wavelength (nm) Port / Link | Insertion Loss (dB) | Range (km) |
|---|---|---|---|---|---|
| **EM316DCM060** | SMF28 slope matched 60km multi-channel C-Band Chromatic DCM Dispersion Compensation Module | LC / LC | C-Band | 3.5 | 0 - 60 |
| **EM316DCM100** | SMF28 slope matched 100km multi-channel C-Band Chromatic DCM Dispersion Compensation Module | LC / LC | C-Band | 3.5 | 0 - 100 |

Contact your nearest authorized MRV Communications representative or visit http://www.mrv.com on the web for additional information including pricing and availability.

MRV has more than 50 offices throughout the world. Addresses, phone numbers and fax numbers are listed at www.mrv.com. Please e-mail us at **sales@mrv.com** or call us for assistance.


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