

## Optical Dispersion Compensation Module

### Overview

Optical Dispersion Compensation Module is a part of MICROSENS 10G Transport Platform, a high performance and flexible carrier-class transmission system. The 10G Transport Platform enables increasing transport capacities in CWDM, DWDM and SDH networks. The use of wide range TDM modules permits to reduce the number of necessary wavelengths and to decrease the overall cost of the application. Ethernet over SDH modules enable using existing SONET/SDH infrastructure for IP transmission.



The general features of the system:

- 19" 2U Chassis with 5 module slots and management card
- Max. 5x single size modules f.ex. 2x double size + 1x single size module
- Hot swappable modules & power supplies
- Redundant power supplies with -48 VDC input (opt. 230 VAC)
- Exchangeable air- and filter module
- Wide range of functional xWDM and TDM modules available

The functional modules of 10G Transport Platform include:

- TDM 8x GBE or 8x GFC to 10G/OC-192/STM-64
- TDM 5x GBE or 5x 2GFC to OC-192/STM-64
- TDM 4x OC-48/STM-16 to 10G/OC-192/STM-64
- TDM 2x GBE and 2x GFC to OC-48/STM-16
- 10G transponder with 3R, XFP and fixed Laser Versions
- 10G protocol converter 10G LAN to 10G WAN (OC-192/STM-64)
- DWDM MUX/DeMUX, OADMs, EDFAs

## Introduction

The MS430999 is a 1U Rack mount unit which can carry two MS430920M/MS430921M/MS430922M units. The ODC unit provides chromatic dispersion compensation.

## Functional Description

The MS430999 is a 1U high chassis capable of hosting one or two ODC units. The block diagram for the ODC module is given in Figure 1

The ODC unit is a uni-directional device.

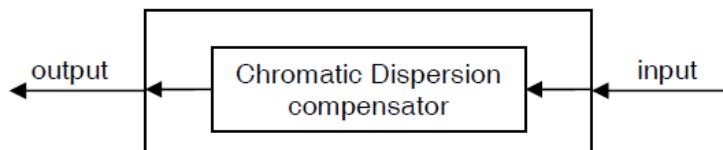


Figure 1: MS430900M Block diagram.

## Optical Characteristics

The Optical Dispersion Compensation module has the following optical characteristics.

	Value			Unit
	Min	Typ	Max	
Compensation Level (SMF)	20		100	km
Compensation Level (NZDSF)	40		240	km
Wavelength	1527.22		1567.13	nm
Operation Bandwidth	40/100*			GHz
Insertion Loss			4	dB
Polarisation Dependent Loss			0.25	dB
Polarisation Mode Dispersion			1.2	ps
Connector type	SC/PC			

\*100GHZ for MS430922M options

Table 1: The Optical Dispersion Compensation modules optical characteristics

## Environmental conditions

The Optical Dispersion Compensation module is designed for operating in an ambient temperature range of 0°C to 50°C.

In the storage temperature range of -20 to +85°C, the Optical Dispersion Compensation module has no reliability deficiency.

## Mechanical Description

The ODC unit is a module which can be slidden in the MS430999 chassis. The Figure 2 describes the mechanical specification of the ODC module.

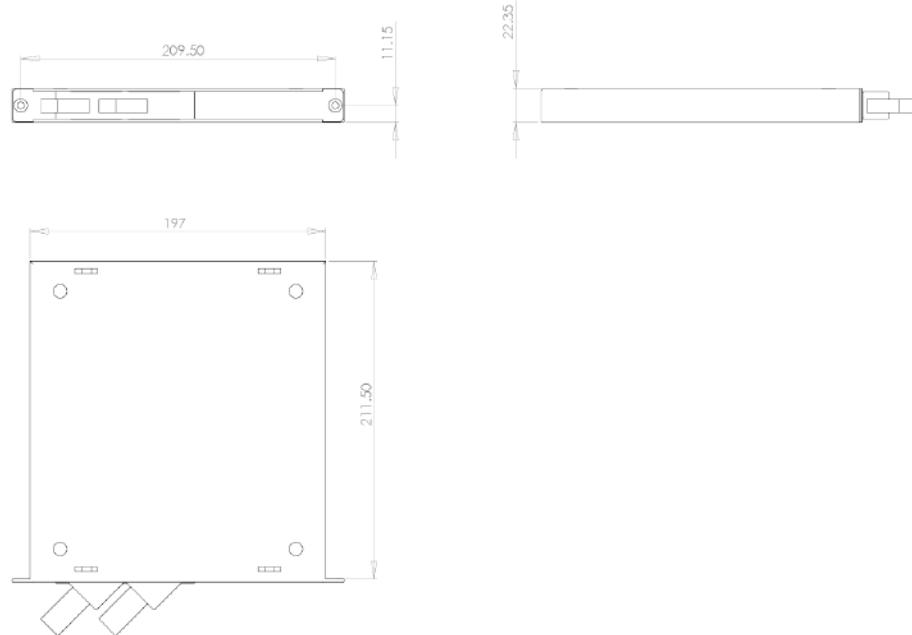
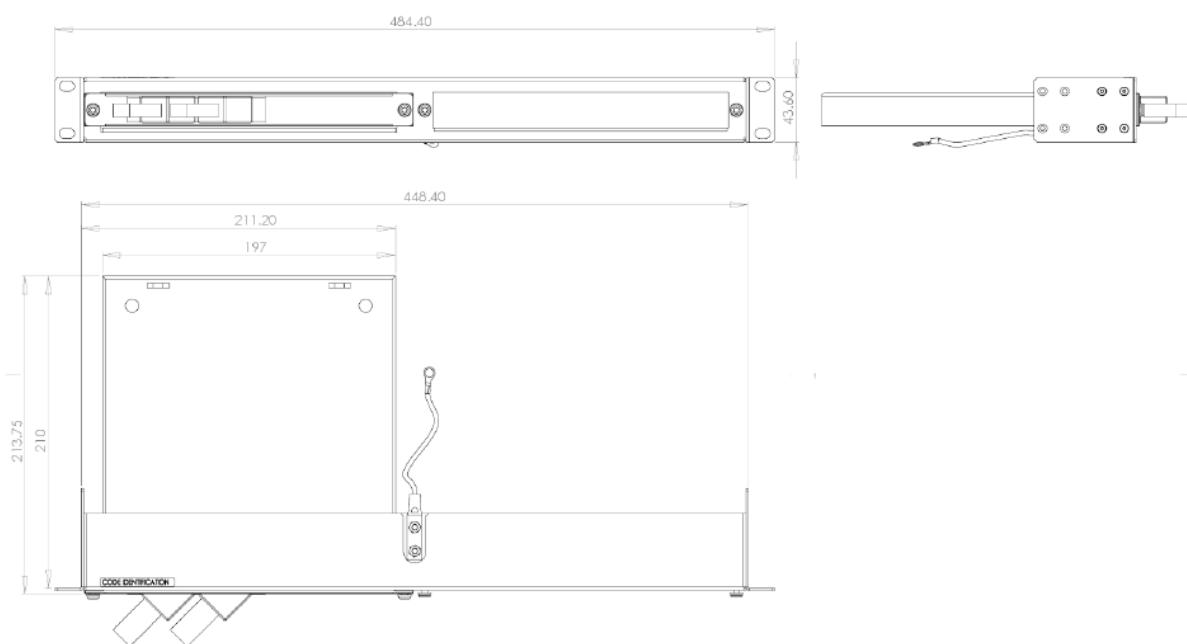


Figure 2: ODC mechanical dimension.

The MS430999 is a 1U Rack-Mount Chassis. The Figure 3 describes the MS430999 equipped with one ODC module.



## Order Information

Art. No.	Description
<b>Modules</b>	
MS430920M-20	C band 20km Optical Dispersion Compensation Module, Continuous Band
MS430920M-40	C band 40km Optical Dispersion Compensation Module, Continuous Band
MS430920M-60	C band 60km Optical Dispersion Compensation Module, Continuous Band
MS430920M-80	C band 80km Optical Dispersion Compensation Module, Continuous Band
MS430920M-100	C band 100km Optical Dispersion Compensation Module, Continuous Band
MS430920M-120	C band 120km Optical Dispersion Compensation Module, Continuous Band
MS430921M-40	C band 40km NZDF Optical Dispersion Compensation Module, Continuous Band
MS430921M-80	C band 80km NZDF Optical Dispersion Compensation Module, Continuous Band
MS430921M-120	C band 120km NZDF Optical Dispersion Compensation Module, Continuous Band
MS430921M-160	C band 160km NZDF Optical Dispersion Compensation Module, Continuous Band
MS430921M-200	C band 200km NZDF Optical Dispersion Compensation Module, Continuous Band
MS430921M-240	C band 240km NZDF Optical Dispersion Compensation Module, Continuous Band
MS430922M-20	C band 20km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only
MS430922M-40	C band 40km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only
MS430922M-60	C band 60km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only
MS430922M-80	C band 80km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only
MS430922M-100	C band 100km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only
MS430922M-120	C band 120km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only
MS430922M-140	C band 140km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only

MS430922M-160	C band 160km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only
MS430922M-180	C band 180km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only
MS430922M-200	C band 200km Optical Dispersion Compensation Module, compatible on ITU grid 100GHz only
MS430999	Rack Mountable Chassis for up to 2 Dispersion Compensation modules (1U high)

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