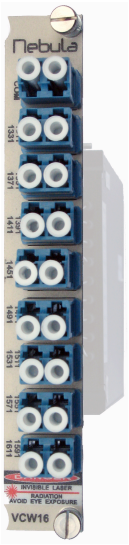
Nebula Ethernet Optics for Access Networks

High Capacity Fiber Optic Solutions



Part Number **V-CWDM16**

Applications

- CWDM overlay onto existing fiber-optic infrastructure
- Single-fiber and dual-fiber CWDM optical multiplexing

Features

- Low loss
- Supports standard and extended CWDM bands
- Cost effective

Optical Specifications

Parameter	Min	Max	Unit	Notes
Optical Operating Wavelength	1304	1620	nm	
Add/Drop CWDM Wavelengths	1311	1611	nm	20 nm Steps
Pass Band Width	-6.5	+6.5	nm	
Add/Drop Port Insertion Loss		3.5	dB	
Adjacent Channel Isolation	30		dB	COM -> Add/Drop
Non-Adj. Channel Isolation	40		dB	COM -> Add/Drop
Thermal Stability		0.005	dB/°C	
Thermal Drift		5	pm/°C	
Directivity Add/Drop Port	50		dB	
Return Loss all ports	45		dB	
Polarization Dependant Loss		0.1	dB	
Polarization Mode Dispersion		0.1	dB	
Power Handling		300	mW	

Environmental Characteristics

Parameter	Min	Max	Unit	Notes
Storage Temperature Range	-40	+85	°C	
Operating Temperature Range	0	+70	°C	Within spec. Device will not be not damaged unless Storage Temp Range exceeded.

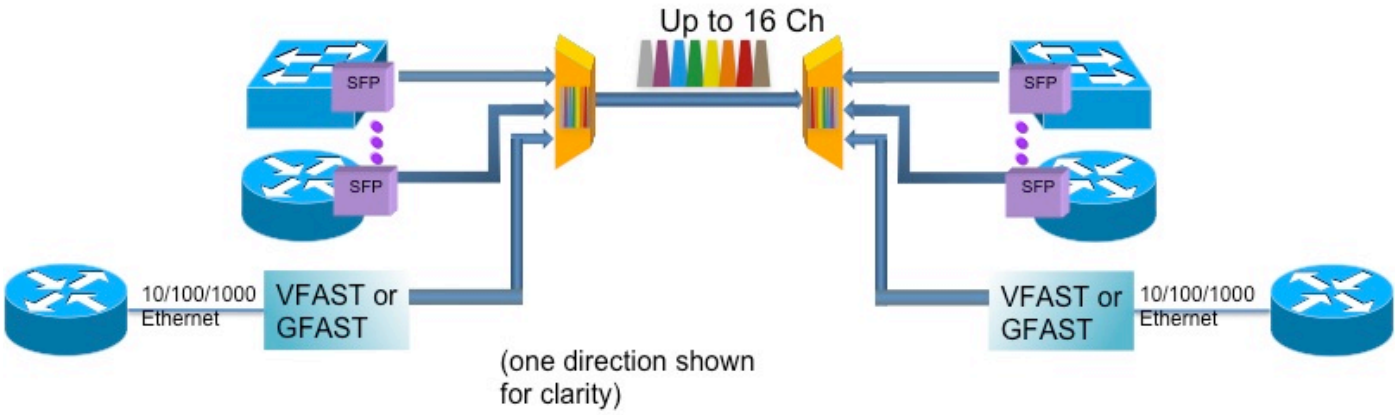
Connectorization

Ports	Connector
Common	LC
CWDM Add/Drop	LC

Sales: 1-604-948-0240
www.nebulaoptics.com

Application Example

BEFORE - Single wavelength system



AFTER - Multiple wavelengths over a fiber pair to increase system capacity

Wavelength Multiplexer Compatibility Chart

ch Code	Wavelength	Compatible Multiplexers						
Standard Band		V-ADM1-C-ch	V-CWDM16	V-CWDM8	V-CWDM4	V-4WM	V-CWDM14	V-CWDM17
61	1611 nm	V-ADM1-C-61	√	√			√	√ (1)
59	1591 nm	V-ADM1-C-59	√	√			√	√ (1)
57	1571 nm	V-ADM1-C-57	√	√	√		√	√
55	1551 nm	V-ADM1-C-51	√	√	√	√(2)	√	√
53	1531 nm	V-ADM1-C-53	√	√	√		√	√
51	1511 nm	V-ADM1-C-51	√	√	√		√	√
49	1491 nm	V-ADM1-C-49	√	√		√	√	√
47	1471 nm	V-ADM1-C-47	√	√		√	√	√
Extended Band								
45	1451 nm	V-ADM1-E-45	√				√	√
43	1431 nm	V-ADM1-E-43	√				√	√
41	1411 nm	V-ADM1-E-41	√				√	√
39	1391 nm	V-ADM1-E-39	√				√	√
37	1371 nm	V-ADM1-E-37	√				√	√
35	1351 nm	V-ADM1-E-35	√				√ (3)	√
33	1331 nm	V-ADM1-E-33	√				√ (3)	√
31	1311 nm	V-ADM1-E-31	√				√ (3)	√
29	1291 nm	V-ADM1-E-29					√ (3)	
27	1271 nm	V-ADM1-E-27					√ (3)	

(1) 1591 nm and 1611 nm are combined in one channel in this multiplexer.
(2) V-4WM supports wide 1550 lasers. 1511 nm to 1591 nm CWDM lasers all fit within this bandwidth.
(3) V – CWDM14 support wide 1310 legacy lasers, or a concatenated DWDM mux to support 5 extended DWDM SFP+ 10 Gbps wavelengths