

High Capacity Fiber-Optic Solutions

Part Number V-4WM

Applications

- Add two CWDM wavelengths to legacy WDM systems
- Preserve legacy SONET systems will expanding with CWDM
- Separation of 1310 nm systems from DWDM wavelengths

Features

- Supports 1310 and 1550 legacy wavelengths and CWDM
- Passive device requiring no power
- Compatible with DWDM multiplexers
- Combined multiplexer and demultiplexer

Optical Specifications

Parameter	Min	Max	Unit	Notes
1310 nm Pass Band Width	-50	+50	nm	relative to band centre at -1 dB
1550 nm Pass Band Width	-50	+50	nm	relative to band centre at -1 dB
Add/Drop CWDM Wavelengths	1471	1491	nm	
CWDM Pass Band Width	-6.5	+6.5	nm	relative to band centre
1310 & 1550 Insertion loss		1.0	dB	(1) V-4WM performance add 0.5 dB (approx) for patch cords.
CWDM Insertion loss		1.0	dB	(1)
Adjacent Channel Isolation (COM -> Add/Drop)	20		dB	
Thermal Stability		0.005	dB/°C	
Thermal Drift		5	pm/°C	
Return Loss all ports	40		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
All	LC

Application Example

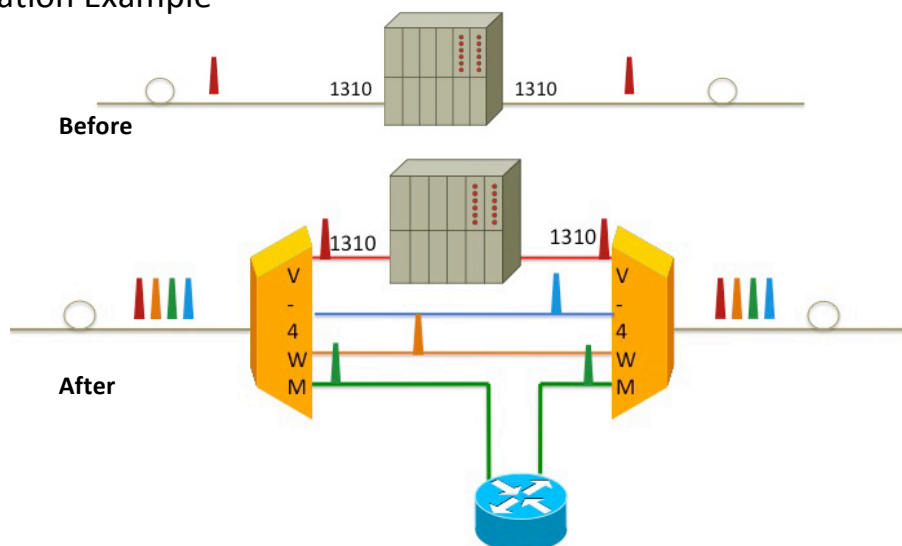


Figure 1 - Adding New Services to a Legacy SONET Network

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