

Passive Optical Network Components

- **Low-cost option to expand network capacity**
- **Easily integrated into ViaLite RF-over-Fiber systems**
- **Bi-directional service traffic on a single fiber**
- **ITU and Telcordia compliant components with high reliability**
- **Enable full exploitation of fiber bandwidth**
- **Protocol transparent**

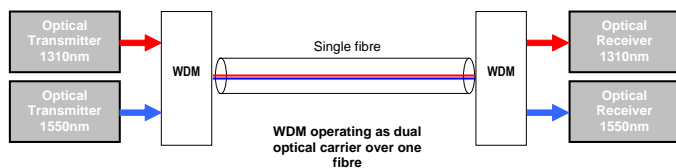
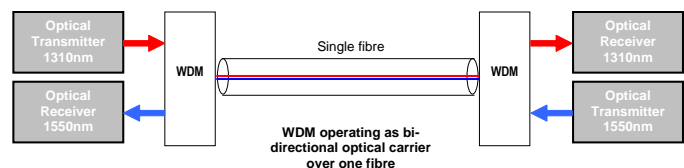
Service Growth and Network Expansion

ViaLite passive optical network (PONs) components enable conventional multi-media point-to-point service transmission platforms to be upgraded, realising low-cost routes to service capacity growth and network expansion. For service providers with limited fiber access or limited budget to spend on leased fiber, ViaLite Optical wavelength division multiplexing platforms offer a cost effective and reliable means of delivering multiples services over a single fiber by using some of the available fiber bandwidth.



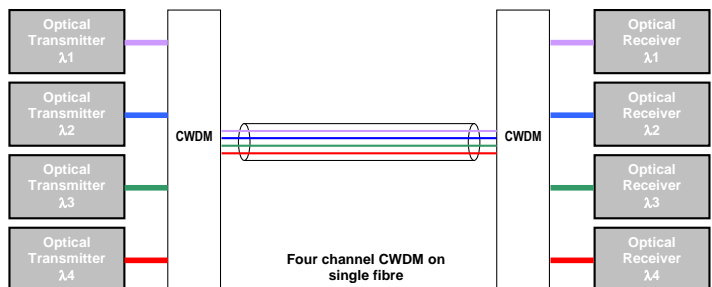
Optical Multiplexers - Capacity Expansion using WDM and CWDM

The ViaLite range of optical multiplexing products are ITU compliant and augment the ViaLite RF-over-fiber transport portfolio. ViaLite offers truly bi-directional service transmission through the deployment of a WDM 1310nm / 1550nm transmission platform. When used with fiber optic transmitter modules (one 1310nm version and one 1550nm version) this passive WDM device allows a transmit and receive path over a single fiber.



The WDM product also enables simultaneous transmission of two optical carriers in the same direction (operating at 1310nm and 1550nm) by combining them onto one fiber.

ViaLite also offer four and eight channel ITU-T compliant CWDM transmission platforms, enabling the simultaneous transmission of up to eight wavelengths (individual optical carriers) over a single fiber. ViaLite WDM's are available in 7HP wide plug in modules for rack mounting or as pigtailed modules for OEM use. CWDM modules are packaged in 19" 1U racks.

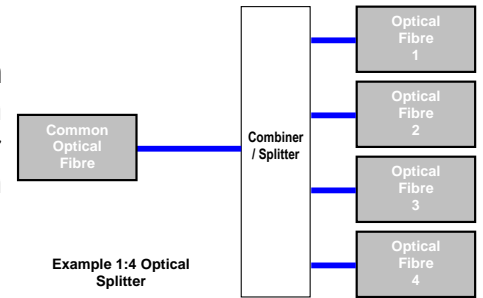


ViaLite fiber optic receiver modules are all optically broadband and therefore no wavelength matched receivers are needed when used in WDM and CWDM systems.



Optical Branching Components - Network Expansion using Optical Splitters

ViaLite offers passive optical branching or 'splitting' components to divide the optical power across two or more separate optical branching ports. In this way users can realise a point-to-multiple point 'star' distribution network. The power split ratio can vary from 1 % (known as a tap-coupler) for service monitoring applications, to 50% or more for service distribution to multi receive sites. Reliability is assured through compliance to Telcordia GR-1221. ViaLite offer 1:2, 1:4 and 1:8 optical splitters in either 7HP wide plug in modules for rack mounting or 1U high 19" racks.



Optical Performance Characteristics

	Maximum	Minimum
Optical Splitters (50:50 split ratio)		
1550 Channel Wavelength	1528nm	1563nm
1310 Channel Wavelength	1295nm	1325nm
Max Power Handling	4W	
Return Loss/ Directivity	55dB	
Insertion Loss	2.8dB	3.2dB
WDM		
1550 Channel Wavelength	1550 ± 20nm	
1310 Channel Wavelength	1310 ± 20nm	
Max Power Handling		100mW ^b
Pass Band Ripple		0.4dB
Insertion Loss		1.5dB
Isolation	40dB	
CWDM		
Centre Wavelength	as per ITU G.694.2	
Max Power Handling		100mW ^b
Passband Insertion Loss		2.8dB (4.5dB ^a)
Passband Ripple		0.4dB (0.7dB ^a)
Return Loss	50dB	
Adjacent Channel Isolation	30dB (50dB ^a)	
Non-Adjacent Channel Isolation	40dB (60dB ^a)	
^a High Isolation Version		^b per channel

Environmental Performance Characteristics

	Maximum	Minimum
All PONS Components		
Operating Temperature	0°C	+55°C
Storage Temperature	-40°C	+85°C

Ordering Information

Part Number	Description	Package	Connector
53219	Optical splitter 1:2	Pigttailed	FC/APC
53231	Optical splitter 1:2	Pigttailed	E2000/APC
53233	Optical splitter 1:2	Pigttailed	SC/APC
74208	Optical splitter 1:2	Plug in Module	FC/APC
74209	Optical splitter 1:2	Plug in Module	E2000/APC
74210	Optical splitter 1:2	Plug in Module	SC/APC
74076	Optical splitter 1:4	19" Chassis 1U	FC/APC
74077	Optical splitter 1:4	19" Chassis 1U	E2000/APC
74078	Optical splitter 1:4	19" Chassis 1U	SC/APC
74066	Optical splitter Dual 1:4	19" Chassis 1U	FC/APC
74087	Optical splitter Dual 1:4	19" Chassis 1U	E2000/APC
74088	Optical splitter Dual 1:4	19" Chassis 1U	SC/APC
74056	Optical splitter 1:8	19" Chassis 1U	FC/APC
74057	Optical splitter 1:8	19" Chassis 1U	E2000/APC
74058	Optical splitter 1:8	19" Chassis 1U	SC/APC
74106	Optical splitter 1:16	19" Chassis 1U	FC/APC
74107	Optical splitter 1:16	19" Chassis 1U	E2000/APC
74108	Optical splitter 1:16	19" Chassis 1U	SC/APC
74006	WDM high isolation 1310/1550nm	Pigttailed	FC/APC
74007	WDM high isolation 1310/1550nm	Pigttailed	E2000/APC
74008	WDM high isolation 1310/1550nm	Pigttailed	SC/APC
74206	WDM high isolation 1310/1550nm	Plug in Module	FC/APC
74207	WDM high isolation 1310/1550nm	Plug in Module	E2000/APC
74218	WDM high isolation 1310/1550nm	Plug in Module	SC/APC
74036	CWDM 4 channel	19" Chassis 1U	FC/APC
74037	CWDM 4 channel	19" Chassis 1U	E2000/APC
74038	CWDM 4 channel	19" Chassis 1U	SC/APC
74016	CWDM 8 channel	19" Chassis 1U	FC/APC
74017	CWDM 8 channel	19" Chassis 1U	E2000/APC
74018	CWDM 8 channel	19" Chassis 1U	SC/APC
74046	CWDM high isolation 4 channel	19" Chassis 1U	FC/APC
74047	CWDM high isolation 4 channel	19" Chassis 1U	E2000/APC
74048	CWDM high isolation 4 channel	19" Chassis 1U	SC/APC
74026	CWDM high isolation 8 channel	19" Chassis 1U	FC/APC
74027	CWDM high isolation 8 channel	19" Chassis 1U	E2000/APC
74028	CWDM high isolation 8 channel	19" Chassis 1U	SC/APC