

Passive Optical Network Components

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

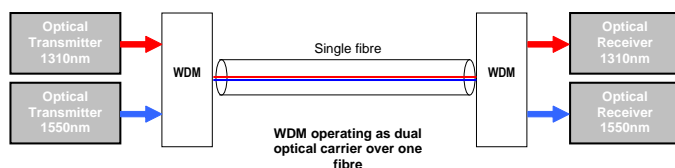
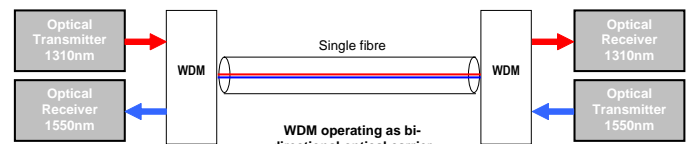
Service Growth and Network Expansion

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 fibre access or limited budget to spend on leased fibre, **ViaLite** Optical wavelength division multiplexing platforms offer a cost effective and reliable means of delivering multiples services over a single fibre by using some of the available fibre bandwidth.

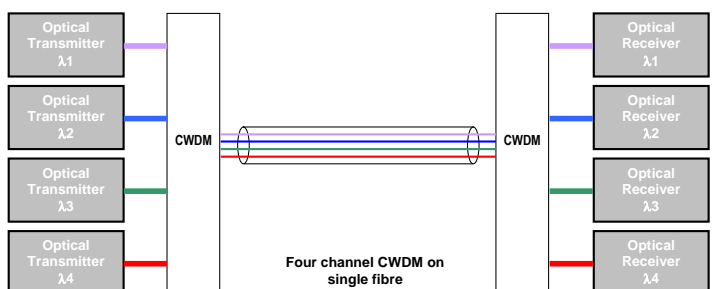


Optical Multiplexers - Capacity Expansion using WDM and CWDM

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



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 fibre.



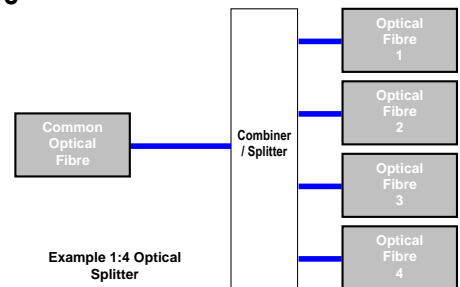
ViaLite also offer four and eight channel ITU-T compliant CWDM transmission platforms, enabling the simultaneous transmission of up to eight wavelengths (individual optical carriers) over a single fibre. **ViaLite** WDM's are available in 7HP wide plug in modules for rack mounting or as pigtailed modules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

ViaLite fibre 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 ^a |
| 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 |
| 74204 | Optical splitter 1:4 | Plug in Module | LC/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 |