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express CWDM Single-fiber

CWDM/OADM over a single FO line

Highlights

- ☑ Passive CWDM multiplexers and add/ drop units with 1, 2 or 4 channels
- ☑ Transmits and receives at the Network port on a single fiber
- ☑ Up to10 Gbit/s per channel
- ☑ Compliant to ITU-T G.694.2 CWDM grid
- ☑ Easy integration of new services over existing fiber optic lines
- ☑ Low-cost transceivers applicable, existing equipment can still be used
- ☑ Metro distance, up to 80 km
- ☑ Fully transparent to all data rates and protocols
- ☑ Entirely passive device, no power supply needed

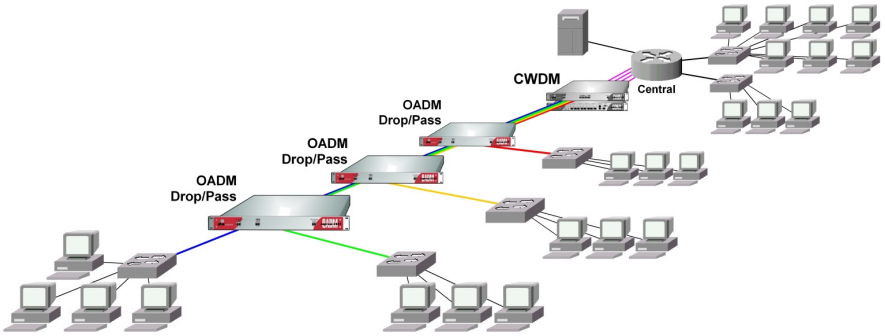
The flexible express CWDM/OADM concept provides the ideal enhancement for your current fiber optic infrastructure. It will transmit up to 4 connections of different standards, data rates or protocols over one single-fiber optic link. ESCON, ATM, Fibre Channel, Gigabit-Ethernet - all protocols simultaneously.

Our new cost-effective CWDM single-fiber concept utilizes two adjacent channels of the standardized ITU-T CWDM grid for connecting each one data channel bidirectional over one fiber optic line. A matching pair of multiplexers allows the point-to-point transmission of four data channels in both directions.
With our complementary express CWDM single-fiber add/drop components you can drop channels from a bus or build optical add-and-drop rings in a flexible way.

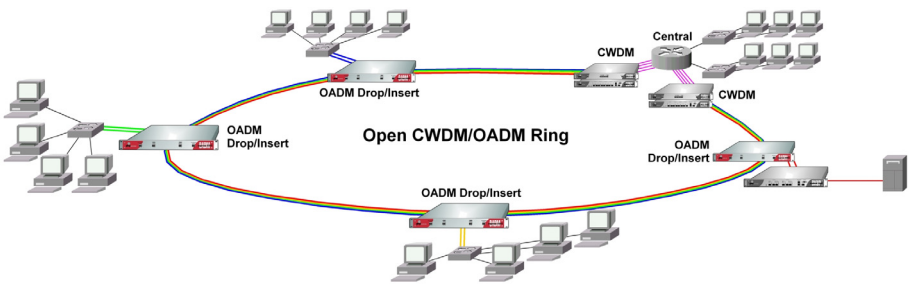
Due to its purely passive technology, the express CWDM series is well-prepared for building a fail-safe and maintenance-free backbone architecture.

Application Examples

- **Enterprises and Carriers/Telcos with Fiber Infrastructure**
- **Access to Additional Applications via Existing Links**
- **ATM, Escon, Fibre Channel, Giga-Ethernet over one single Fiber Optic Line**
- **Cost-Effective Transmission of High Data Volumes**
- **Ideal Solution for Metro-Core, Metro-Access and Enterprises**



Stations Connected to Central via express CWDM/OADM Equipment



Open CWDM/OADM Ring with Redundantly Connected Stations

01/2006

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Specification

CWDM/OADM Channels	Duplex LC Connector Max. 10 Gbit/s Channel grid 40 nm Complies to ITU-T G.694.2
Wavelengths per Channel	1471 nm <-> 1491 nm 1511 nm <-> 1531 nm 1551 nm <-> 1571 nm 1591 nm <-> 1611 nm
CWDM/OADM Network Ports	Simplex SC Connector Bidirectional
Power Supply	Not Needed
Mechanical	19" 1HU, Depth 260 mm
Environmental	Temperature 0-60°C, Humidity max. 90%, Non-condensing

Ordering Information

express CWDM 5104 Single-fiber 1 x CWDM Network Simplex SC	**express OADM 5202/5302 Single-fiber** 2 x CWDM Network East/West Simplex SC	**express OADM 5201/5301 Single-fiber** 2 x CWDM Network East/West Simplex SC
Order Code: G5104-XXXX-S 4 x 20 nm Channel, Duplex LC	**Order Code: G5202-XXXX-S** 2x Channel Drop, Duplex LC **Order Code: G5302-XXXX-S** 2x Channel Drop, Duplex LC 2x Channel Insert, Duplex LC	**Order Code: G5201-XXXX-S** 1x Channel Drop, Duplex LC **Order Code: G5301-XXXX-S** 1x Channel Drop, Duplex LC 1x Channel Insert, Duplex LC
XXXX=1471: TX= 1471, 1511, 1551, 1591 nm RX= XXXX+20 nm **XXXX=1491:** TX= 1491, 1531, 1571, 1611 nm RX= XXXX+20 nm	**XXXX=1471, 1511, 1551:** TX= XXXX, RX=XXXX+20 TX= XXXX+40, RX=XXXX+60 **XXXX=1491, 1531, 1571:** TX= XXXX, RX=XXXX-20 TX= XXXX+40, RX=XXXX+20	**XXXX=1471, 1511, 1551, 1591:** TX= XXXX, RX=XXXX+20 **XXXX=1491, 1531, 1571, 1611:** TX= XXXX, RX=XXXX-20

Additional Information:
Using Single-fiber CWDM, each data channel will occupy two adjacent CWDM channel wavelengths, one for each direction.
Therefore it is necessary to install pairs of devices that fit together.
For a 4-Channel Single-fiber CWDM line you will need:
1x G5104-1471-S and
1x G5104-1491-S.
For choosing OADM Components, the device types at location West and/or East must be considered.
The OADM device always emulates an East type.
West: G5104-1471-S, East: G5104-1491-S => OADM: G5201-1491-S.
West: G5104-1491-S, East: G5104-1471-S => OADM: G5201-1471-S.

Other CWDM multiplexer types available on request.

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