

Passive Optical Networks

xWDM/xPON CEMx series multiplexers



INTRODUCTION:

xWDM/xPON multiplexers can be applied in expanding an existing PON network to new services or protocols. xWDM/xPON solutions family consists of devices compliant with the ITU-T G.984.5 recommendation as well as dedicated solutions adapted to the Customer's needs. High quality components ensure very high operation stability of xWDM/xPON multiplexers in the whole spectral range and perfect thermal stability. xWDM/xPON multiplexers are available both in a version without connectors (intended for splicing) and with any connector type.

APPLICATIONS:

- WDM systems
- FTTH access networks
- Cable networks and HFC
- Other optical telecommunication networks

FEATURES AND ADVANTAGES:

- High thermal stability of parameters
- Low insertion and polarization losses
- High interchannel isolation
- Available with any type of fiber optic connectors
- Available non-standard solutions with specialized functionalities

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TECHNICAL SPECIFICATIONS:

Insertion loss and isolation:

| Multiplexer ¹ | Protocol/service | Spectral range | Max. insertion loss ² | Isolation |
|--------------------------|------------------|------------------------------|----------------------------------|-----------|
| CEMx.1 | GPON | 1290-1330 nm 1480-1500 nm | 0.7 dB | ≥ 25 dB |
| | XG-PON1 | 1260-1280 nm 1575-1581 nm | 1.2 dB | ≥ 25 dB |
| | TWDM-PON | 1524-1544 nm 1596-1603 nm | 1.4 dB | ≥ 25 dB |
| | PtP WDM PON | 1606-1625 nm | 1.5 dB | ≥ 16 dB |
| CEMx.3 | GPON | 1290-1330 nm 1480-1500 nm | 0.7 dB | ≥ 25 dB |
| | VIDEO | 1550-1560 nm | 1.8 dB | ≥ 25 dB |
| | TWDM-PON | 1524-1544 nm 1596-1603 nm | 1.6 dB | ≥ 25 dB |
| | PtP WDM PON | 1606-1625 nm | 1.6 dB | ≥ 16 dB |

¹Nomenclature according to ITU-T G.984.5 recommendation

²Additional insertion losses in the case of multiplexers with connectors: +0.4 dB

Other parameters:

| Parameter | Unit | Value |
|-----------------------|------|---------|
| PDL | dB | ≤0.1 |
| Directivity | dB | ≥55 |
| RL | dB | ≥50 |
| Max. input power | dBm | 500 |
| Temp. operating range | °C | 0/+70 |
| Temp. storage range | °C | -40/+85 |
| Fiber type | - | G.652.D |

ORDERING INFORMATION:

| Series | Series | Fiber type | Monitoring port | Multiplexer type | Number of multiplexers | Housing type | Connector in | Connectors out |
|--------|--------|------------|--------------------------------|------------------|------------------------|--------------|--------------|----------------|
| PZXW | G0 | 1 - G.652D | 0 – no port | CEMx.1 | 01-1 | 1 - 19", 1U | ST | ST |
| | | 2 - G657A1 | 1 - monitor 1% standard uni-di | CEMx.3 | 02-2 | 2 - 19", 2U | SC | SC |
| | | 3 - G657A2 | 2 - monitor 1% standard bi-di | | | 3 - LGX1 | SCA | SCA |
| | | 4 - G655 | 3 - monitor 5% standard uni-di | | | 4 - LGX2 | FC | FC |
| | | | 4 - monitor 5% standard bi-di | | | 5 - LGX3 | FCA | FCA |
| | | | 5 - monitor 5% flat uni-di | | | | LC | LC |
| | | | 6 - monitor 5% flat bi-di | | | | LCA | LCA |
| | | | | | | | E20 | E20 |
| | | | | | | | E2A | E2A |

Example reference: PZXW-G0-1-0-CEMx.1-01-1-SCA-SCA – One CEMx.1 multiplexer in PZXW patch panel of height 1U, PREMIUM quality, G.652.D fiber, without power monitoring channel, SCA connectors

Important notice

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