

Thin-Film Coarse Wavelength Division Multiplexers (CWDMs)

This document proposes the specification of Coarse Wavelength Division Multiplexers and Demultiplexers.

Specifications

(All parameters are referenced without connectors. Typical connector loss 0.25 dB/pair)

| Parameters | Specification | Unit |
|--|---|-------|
| Center Wavelength | 1271, 1291, 1311, 1331, 1351, 1371, 1391, 1411, 1431, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 | nm |
| Nominal Channel Spacing | 20 | nm |
| Channel Passband | $\lambda_c \pm 6.5\text{nm}$ | nm |
| Passband Ripple | ≤ 0.5 | dB |
| Insertion Loss | ≤ 1.8 (4-ch) ≤ 2.8 (8-ch) ≤ 3.8 (16-ch) | dB |
| Uniformity | ≤ 1.0 | dB |
| Isolation (adjacent channel) | ≥ 30 | dB |
| Isolation (non-adjacent channel) | ≥ 45 | dB |
| Insertion Loss Temperature Sensitivity | ≤ 0.008 | dB/°C |
| Polarization Dependent Loss | ≤ 0.1 | dB |
| Polarization Mode Dispersion | ≤ 0.1 | ps |
| Return Loss (at Mux/DeMux channels) | ≤ 45 | dB |
| Directivity | ≤ 55 | dB |
| Maximum Power Handling | 300 | mW |
| Operating Temperature | -5 to 65 | °C |
| Storage Temperature | -40 to 85 | °C |
| Package Dimension | P0 (1-ch): $\varnothing 5.50 \times 35 / \varnothing 5.50 \times 40$ P1 (4-ch): 100 (L) x 80 (W) x 8 (H)* P2 (8/16-ch): 120 (L) x 90 (W) x 8 (H)* | mm |

*LGX style enclosures also available. See Section 8 for details.

P/N Scheme: CWDMs

| | | | | | | | | | | | | | | | | | | |
|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| C | W | F | | | | | | | | | | | | | | | | |
|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

