

Thin-Film 100GHz Dense Wavelength Division Multiplexers (DWDMs)

This document proposes the specification of 100GHz Channel Spaced Dense Wavelength Division Multiplexers and Demultiplexers.

Specifications

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

Parameters	Specification	Unit
Center Wavelength	ITU Grid (C and L Bands)	nm
Nominal Channel Spacing	100	GHz
Channel Passband	$\lambda_{ITU} \pm 0.11$	nm
Passband Ripple	≤ 0.5	dB
Insertion Loss	≤ 2.0 (4-ch) ≤ 3.0 (8-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): 80 (L) x 58 (W) x 8 (H)* P2 (8-ch): 120 (L) x 90 (W) x 8 (H)*	mm

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

P/N Scheme: 100GHz and 200GHz DWDMs

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