

Product Bulletin



The TB9 Series of programmable optical grating filters is designed for high-performance laboratory and production testing of single-mode fiber based components and subsystems. Four standard models are available with different bandwidths and optical performance.

The design is available in single or double pass grating configurations to provide high rejection and narrow bandwidth. Optical performance is optimized in the 1530 to 1570 nm window, and the filter can be controlled over the wavelength range of 1460 to 1575 nm.

The TB9 filters can be used for amplified spontaneous emission (ASE) filtering in erbium doped fiber amplifier (EDFA) applications or for removing spontaneous emission from distributed feedback (DFB) lasers and tunable lasers in measurements of wavelength selective components.

The TB9 filters can be controlled using either the front panel keypad or by the IEEE 488 and RS232C interfaces.

TB9 Series Diffraction Grating Filters

Key Features

- Grating-based optical filter
- Full width at half maximum (FWHM) as low as 0.25 nm
- High rejection
- Single-mode fiber in and out
- IEEE 488 and RS232C interfaces

Applications

- Spontaneous emission suppression
- Tunable laser based testing
- ASE filtering in EDFAs
- WDM and DWDM component testing

Specifications

Parameter - 1530 to 1570 nm (C-band)	TB9226	TB9166	TB9223	TB9126	TB9116	TB9106
-3 dB bandwidth (±15%)	0.25 nm	0.3 nm	0.6 nm	0.6 nm	1.1 nm	1.4 nm
-20 dB bandwidth (±15%)	0.7 nm	0.8 nm	1.5 nm	1.6 nm	3.0 nm	4.0 nm
Insertion loss	≤6.0 dB	≤4.0 dB	≤5.5 dB	≤3.0 dB	≤3.0 dB	≤3.0 dB
Polarization dependent loss	≤0.2 dB	≤0.6 dB	≤0.2 dB	≤0.6 dB	≤0.6 dB	≤0.6 dB
Resolution	0.01 nm	0.01 nm	0.02 nm	0.01 nm	0.01 nm	0.01 nm
Return loss	>45 dB					
Repeatability	0.05 nm					
Accuracy	0.2 nm					
Tuning range	1460 to 1575 nm					
Input voltage	100 to 240 V AC, 50 to 60 Hz					
Power consumption	80 VA maximum					
Dimensions (W x H x D)	21.2 x 8.9 x 35.5 cm					
	48.26 cm (19 in) rack mount	2U high, 1/2 rack wide				
Weight	4 kg					
Operating temperature	10 to 40 °C					
Storage temperature	0 to 50 °C					
Humidity	95% RH up to 40 °C, increasing at 5% per °C from 40 to 50 °C					

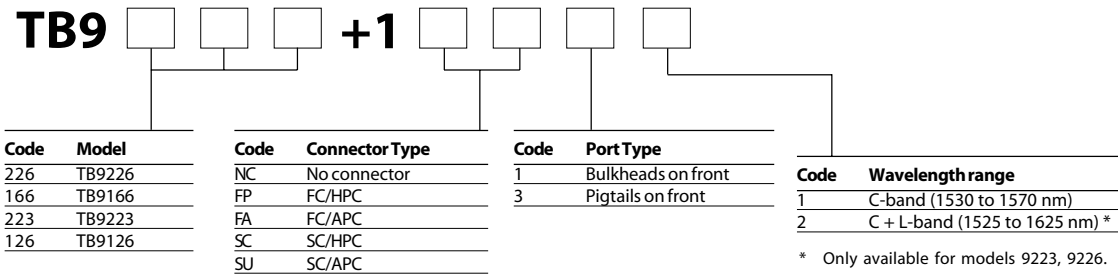
Specifications

Parameter - 1525 to 1625 nm (C + L-band)	TB9226-Z-XX	TB9223-Z-XX
-3 dB bandwidth (±15%)	0.25 nm	0.6 nm
-20 dB bandwidth (±15%)	0.7 nm	1.5 nm
Insertion loss	≤7.0 dB	≤7.0 dB
Polarization dependent loss	≤0.5 dB	≤0.5 dB
Resolution	0.01 nm	0.02 nm

Ordering Information

Indicate your requirements by selecting one option from each configuration table. Please print the corresponding codes in the available boxes to form your part number. For more information on this or other products and their availability, please contact your local JDS Uniphase sales representative or JDS Uniphase directly at 613 727-1303, or by fax at 613 727-8284, or via e-mail at sales@ca.jdsunph.com, or visit our Web site at www.jdsunph.com.

Sample: TB9226+1FA1



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