

Ultra-Narrow Bandwidth-Variable Tunable Filter

CVF-300CL / BVF-300CL

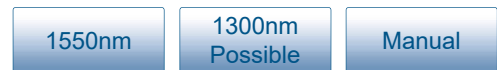
- Unprecedented sharpness: 1500dB/nm roll-off
- Unprecedented narrowness: min. bandwidth 30pm (3.7GHz)
- Flexible: both bandwidth- and wavelength-tunable



CVF-300CL (Programmable)

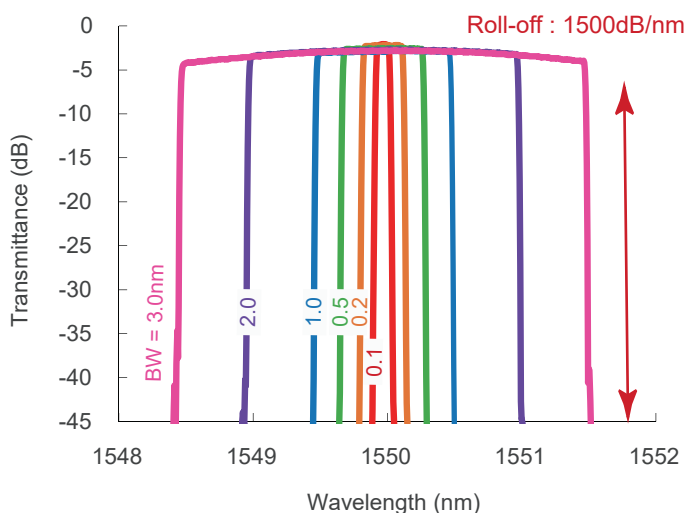


BVF-300CL (Manual)



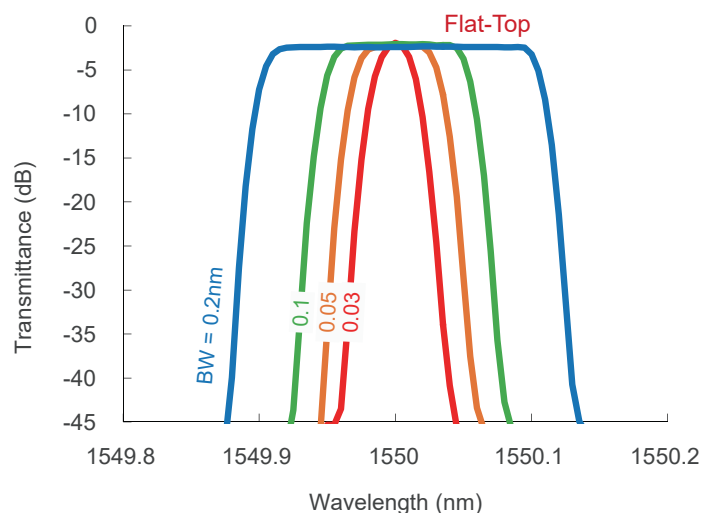
Ultra-Sharp Edge Roll-Off

The filter exhibits an ultra-sharp roll-off of **1500dB/nm** (**12dB/GHz**), without compromising the flexibility of bandwidth- and wavelength-tuning. Ideal for DWDM channel selection and removing ASE noise.



Continuously-Tunable BW: 0.03 to 3nm

The 3dB bandwidth is **30pm (3.7GHz)** at its narrowest, and is also continuously tunable to 3nm (370GHz). Filtering of <1GHz optical frequency comb lines is also possible by combining with etalons.





Specifications

| Parameter | CVF-300CL | | | BVF-300CL | | | |
|---|--|--------|------|-----------------------------|------|------|-------|
| | Min. | Typ. | Max. | Min. | Typ. | Max. | Unit |
| 3dB Bandwidth Tunability | 0.03 | | 3 | 0.03 | | 3 | nm |
| | 3.7 | | 370 | 3.7 | | 370 | GHz |
| Filter-Edge Roll-Off ¹ | 1000 | 1500 | | 1000 | 1500 | | dB/nm |
| Center Wavelength Tunability | (Standard) | 1525 | 1610 | 1525 | | 1610 | nm |
| | (Option) ² | 1515 | 1630 | 1515 | | 1630 | nm |
| Wavelength Accuracy | | <±0.05 | | | — | | nm |
| Wavelength Repeatability | | <±0.01 | | | — | | nm |
| Insertion Loss ³ | (3dB Bandwidth > 0.1nm) | 4.5 | 6.5 | | 4.5 | 5.5 | dB |
| | (3dB Bandwidth = 0.03nm) | 5.5 | 8 | | 5.5 | 7 | dB |
| Return Loss | 40 | 45 | | 40 | 45 | | dB |
| Out-of-Band Suppression | 40 | 50 | | 40 | 50 | | dB |
| Polarization Dependent Loss (SMF-type only) | | 0.2 | | | 0.2 | | dB |
| Maximum Input Power ⁴ | | | 500 | | | 500 | mW |
| Optical Fiber | SMF or PMF | | | SMF or PMF | | | |
| Optical Connector | FC or SC, SPC or APC | | | FC or SC, SPC or APC | | | |
| Advanced Features | Peak Search, Built-in Power Meter | | | — | | | |
| PC Interface | USB and GPIB (Remote) | | | — | | | |
| Power Supply | AC 100-240V (50/60Hz), AC adaptor included | | | — | | | Vac |
| Dimensions (W x H x D) ⁵ | 236 x 88 x 405 | | | 236 x 88 x 380 ⁶ | | | mm |
| Weight | 9 | | | 7 | | | kg |

1. Calculated between -3dB and -40dB points.

2. Within the wavelength range of 1515- 1525nm and 1610- 1630nm, specifications such as max. insertion loss, min. 3dB bandwidth, roll-off etc may vary from the values specified above.

3. May increase by <0.5dB due to connector losses.

4. Max. 300mW in the case of PMF (ensure linear polarization aligned to slow axis, in order to avoid damage).

5. Not including protruding parts.

6. For CE version, the casing dimension is 236 x 88 x 405mm.

Note: The above specifications are guaranteed at ambient temperature of 25 ± 1 °C. In the case of CVF-300CL, allow sufficient warm-up time for stable operation. The above specifications may change without prior notice.

Options

■ Manual filters in 1000nm and 1300nm wavelength ranges.

■ Dual-channel filter (Filter out 2 wavelengths from the spectrum, available for manual version only.)

■ Please inquire for other customizations.

Ordering Information

BVF-300CL -  - 
Fiber Type Connector Type

CVF-300CL -  - 
Fiber Type Connector Type



| Fiber Type Code | | Connector Type Code | |
|-----------------|--------------------------|---------------------|--------|
| SM: | Standard Single Mode | FS: | FC/SPC |
| | | SS: | SC/SPC |
| PM: | Polarization Maintaining | FA: | FC/APC |
| | | SA: | SC/APC |

Our Guarantee

We understand that insertion loss and other parameters are important for our customers. Be assured that within the wavelength range of 1525-1610nm, all of the above specifications are guaranteed. For example, even at the

minimum BW of 30pm, the insertion loss is typically 5.5dB, and guaranteed to be less than 7dB and 8dB, for BVF-300CL and CVF-300CL, respectively.