

波長・帯域幅可変光フィルタ

# OTF-350

OTF-350は波長と透過帯域幅をそれぞれ独立して変えることができる非常に急峻なフィルタスロープを持つマニュアルタイプの可変光フィルタです。回折格子をベースとしたユニークな高精度可変メカニズムにより、フラットトップな透過フィルタスペクトルと優れた光学特性を実現しております。

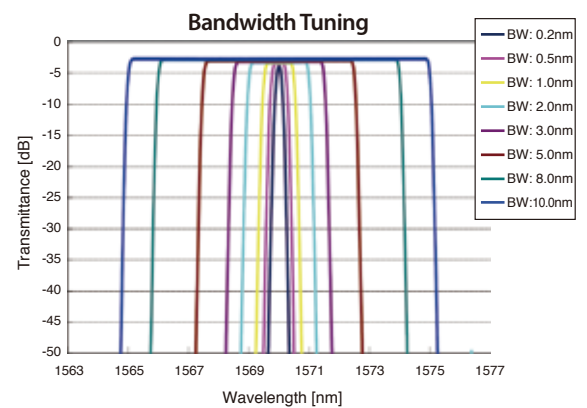
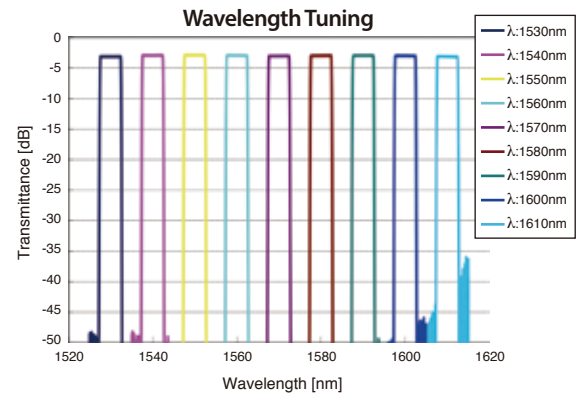


## 特徴

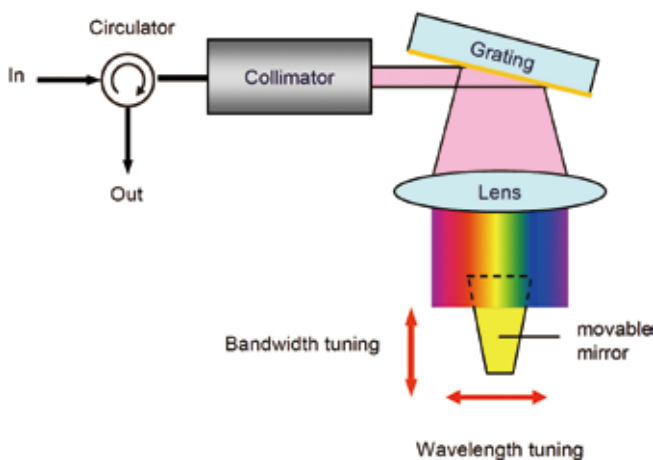
- ▶ 波長可変幅:80nm
- ▶ 波長可変範囲:1530-1610nm(C&L Band)  
O-bandも対応可能
- ▶ バンド幅可変範囲:0.2-10.0nm(標準タイプ)
- ▶ バンド幅可変範囲:0.1-15.0nm(ワイドタイプ)
- ▶ 中心波長と透過帯域幅をそれぞれ独立に、連続可変可能
- ▶ フィルタ特性は矩形に近いフラットトップかつ急峻なカットオフ

## 用途

- ▶ 40Gb/s、100Gb/s伝送試験
- ▶ 波長多重された光信号の波長選択
- ▶ 信号光帯域幅に適応したノイズカット
- ▶ Pulse shaping
- ▶ 次世代光波長クロスコネクト



## 動作原理



## Specifications

### Normal type: BW0.2-10nm

| Category                   | Parameter                            | Unit          | Specification                           | Notes  |
|----------------------------|--------------------------------------|---------------|---|--|
| Wavelength Characteristics | Wavelength Range                     | nm            | 1530 to 1610                            |  |
|                            | Tuning Range                         | nm            | 80                                      |  |
| Filter Characteristics     | Bandwidth @-3dB                      | nm            | 0.2 to 10.0                             |  |
|                            | Bandwidth @-20dB                     | nm            | $\leq 0.6$<br>$\leq 11$                 | Bandwidth@-3dB = 0.2nm<br>Bandwidth@-3dB = 10.0nm      |
|                            | Group Velocity Dispersion            | ps/nm         | $\leq \pm 1$ (Typ. $\leq \pm 0.2$ )     |  |
| Power Characteristics      | Maximum Input Power                  | dBm           | +25                                     |  |
|                            | Insertion Loss                       | dB            | $\leq 5$ (Typ. $\leq 3.5$ )<br>$\leq 7$ | Bandwidth@-3dB $\geq 0.5$ nm<br>Bandwidth@-3dB < 0.5nm |
|                            | Insertion Loss Uniformity (Typical)  | dB            | $\leq 0.5$                              |  |
|                            | Return Loss                          | dB            | $\geq 40$ (Typ. $\geq 45$ )             |  |
|                            | Crosstalk (Typical)                  | dB            | $\geq 50$                               |  |
|                            | PDL (Typical)                        | dB            | $\leq 0.25$                             | SMF  |
|                            | Fiber                                | Optical Fiber | -                                       | SMF or PMF *1  |
|                            | Optical Connector                    | -             | FC or SC                                |  |
|                            | Optical Polish                       | -             | SPC or APC                              | APC = Angled PC  |
| Others                     | Dimensions (Width x Height x Length) | mm            | 250x113x151                             |  |
|                            | Weight                               | kg            | 3.5                                     |  |

\*1: In case of PMF, Polarization extinction ratio 20 dB (typical), Polarization axis in alignment with connector key

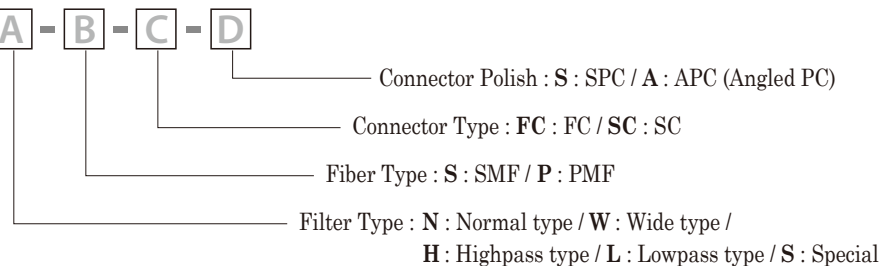
### Wide type: BW0.1-15nm

| Category                   | Parameter                            | Unit          | Specification                           | Notes  |
|----------------------------|--------------------------------------|---------------|---|--|
| Wavelength Characteristics | Wavelength Range                     | nm            | 1530 to 1610                            |  |
|                            | Tuning Range                         | nm            | 80                                      |  |
| Filter Characteristics     | Bandwidth @-3dB                      | nm            | 0.1 to 15.0                             |  |
|                            | Bandwidth @-20dB                     | nm            | $\leq 0.4$<br>$\leq 15.5$               | Bandwidth@-3dB = 0.1nm<br>Bandwidth@-3dB = 15.0nm      |
|                            | Group Velocity Dispersion            | ps/nm         | $\leq \pm 1$ (Typ. $\leq \pm 0.2$ )     |  |
| Power Characteristics      | Maximum Input Power                  | dBm           | +25                                     |  |
|                            | Insertion Loss                       | dB            | $\leq 5$ (Typ. $\leq 3.5$ )<br>$\leq 7$ | Bandwidth@-3dB $\geq 0.2$ nm<br>Bandwidth@-3dB < 0.2nm |
|                            | Insertion Loss Uniformity (Typical)  | dB            | $\leq 0.5$                              |  |
|                            | Return Loss                          | dB            | $\geq 40$ (Typ. $\geq 45$ )             |  |
|                            | Crosstalk (Typical)                  | dB            | $\geq 50$                               |  |
|                            | PDL (Typical)                        | dB            | $\leq 0.25$                             | SMF  |
|                            | Fiber                                | Optical Fiber | -                                       | SMF or PMF *1  |
|                            | Optical Connector                    | -             | FC or SC                                |  |
|                            | Optical Polish                       | -             | SPC or APC                              | APC = Angled PC  |
| Others                     | Dimensions (Width x Height x Length) | mm            | 250x113x151                             |  |
|                            | Weight                               | kg            | 3.5                                     |  |

\*1: In case of PMF, Polarization extinction ratio 20 dB (typical), Polarization axis in alignment with connector key

## Ordering Code

OTF-350 - A - B - C - D



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