



# 100G *Mag-ID* Wavelength Reference Filter

*Photonics Beyond Boundary*

## Features

- Based on advanced etalon technology
- Extreme wavelength stability
- Seam-sealed package



## Applications

- FBG sensing system
- System monitoring
- Test & Measurement
- Instrumentation



## Product Description

Primanex *Mag-ID* Athermal Reference Filters are based on advanced etalon technology. With Primanex's unique opto-mechanical design and advanced packaging techniques, the filters demonstrate extreme wavelength stability under varied environmental conditions including temperature and humidity.

By a patent pending precision tuning technique, the filters come with an option of ITU targeting accuracy within  $\pm 1.25$ GHz. This ITU-targeted filter is widely used in WDM system channel monitoring and wavelength blocking. The special option is also available for customer to select specific wavelengths for precision targeting.

The *Mag-ID* Wavelength Reference Filter is uniquely designed to have one or several consecutive adjacent wavelength peaks blocked, which functions as a fixed wavelength "mark". Such wavelength "mark" will help the scanning system at customer site to tell where it is exactly located in a wavelength span.

The filters come with a broad design options including etalon finesse, channel spacing and operating wavelength range. The customer friendly product design enable the Athermal Reference Filters to be utilized in a spectrum of diverse applications including telecommunication, wavelength referencing and calibrating in sensor system, test & measurement instrumentation, and laser wavelength stabilization.



# 100G Mag-ID Wavelength Reference Filter

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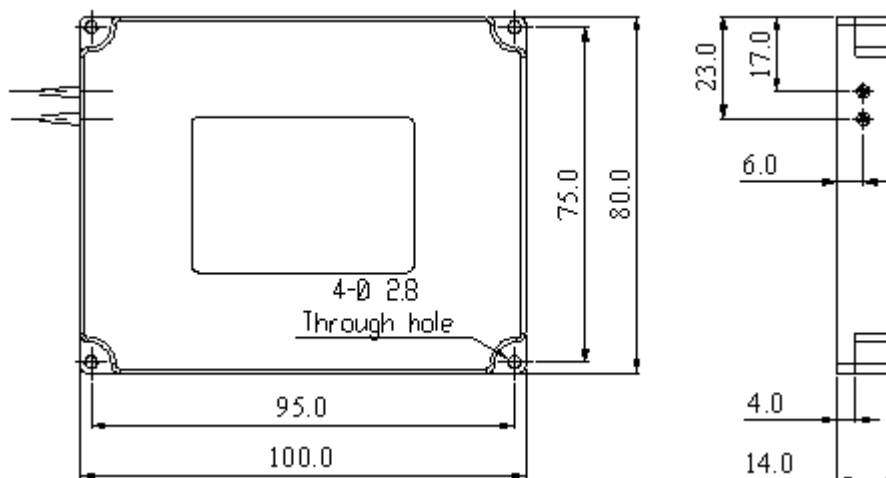
## Specifications

Item	Unit	Parameter		Notes
Wavelength Range	nm	1525 ~ 1565		Custom wavelength range is available
Insertion Loss	dB	4.0		
Polarization Dependent Loss	dB	0.1		
Polarization Dependent Accuracy	GHz	+/- 0.1		
Channel Spacing	GHz	100		200G available upon request
Thermal Stability	GHz	≤ +/- 0.8 (Standard)		Across temperature range
Finesse		7	14	
Pass Band Width@3dB	GHz	≤ 16	≤ 9	
Contrast	dB	≥ 13	≥ 18	
Blocked Channel (s)		Random Selection		Custom selection optional
Back Reflection	dB	≥ 20		Can be custom specified to desired back reflection
Maximum Optical Power	mW	500		
Operation Temperature	°C	-5 ~ 70		Wider temperature range available upon request
Storage Temperature	°C	-40 ~ 85		
Dimension(L×W×H)	mm	100 × 80 × 14 (Regular-type) 80 × 40 × 14 (Mini-type)		
Fiber Type	N/A	Corning SMF-28e+ with 900μm fiber		

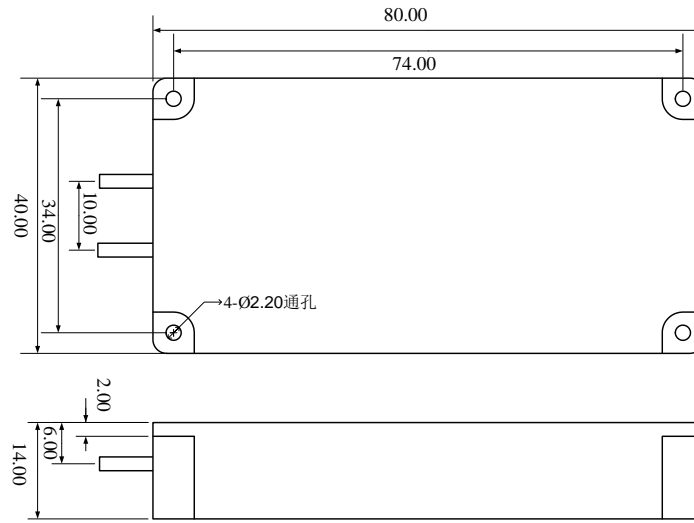
\*. All the specifications are based on the devices without connectors, and guaranteed over the operating temperature ranges, wavelength ranges and all polarization states.

\*\* . Specifications are subject to change without notice.

## Dimensions Drawing (Unit: mm)

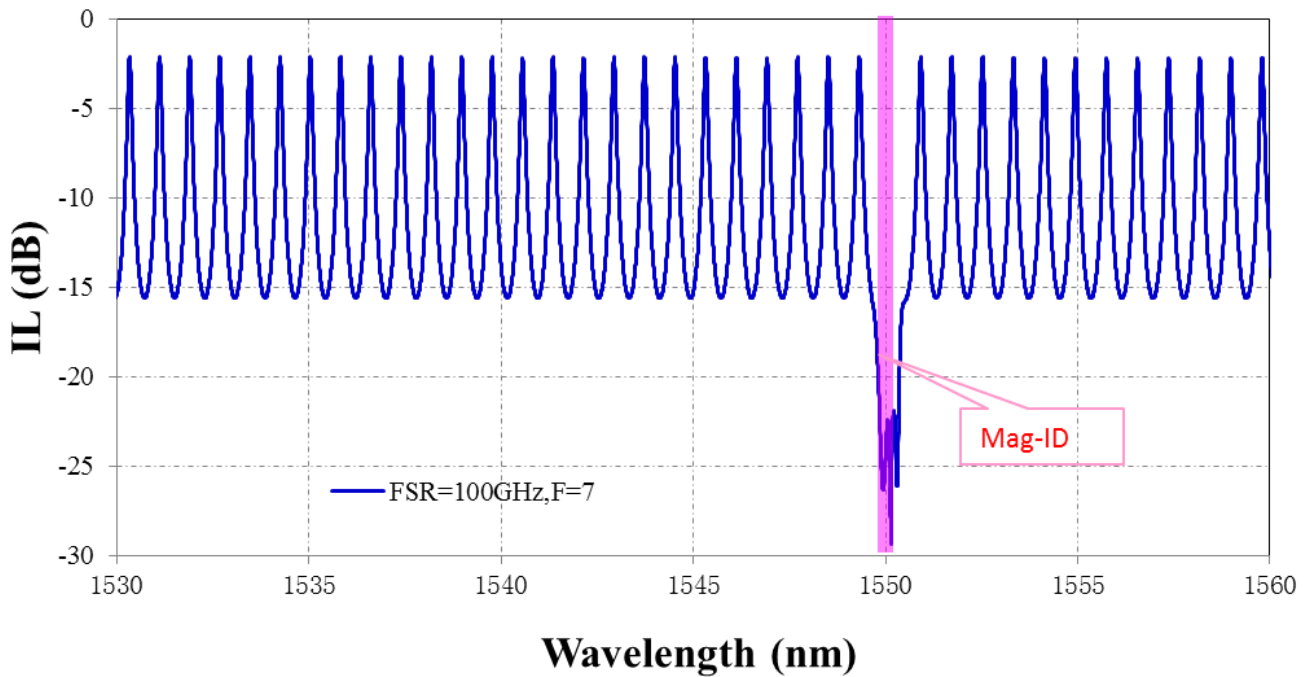


Regular-Type



Mini -Type

**Spectral Plot** (Shown here for filter with finesse of 7, FSR 100 GHz)





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## Ordering Information(Example:PETM1-1111222)

<b>PETM1</b> - <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>2</b>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Blocked Peaks	Operating Wavelength	Finesse	Channel Spacing	Fiber Length	Connector Type	
1. 1	1. C Band	1. 7	1. 100 GHz	1. 0.5 +/- 0.1 m	0.No Connector	
2. 2	2. L Band	2. 14	2. 200 GHz	2. 1.0 +/- 0.1 m	1. FC/UPC	
3. Others	3. Others	3. Others	3. Others	3. Others	2. FC/APC	
					3. SC/UPC	
					4. SC/APC	
					5. LC/PC	
					6. MU/PC	
					7. Others	

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