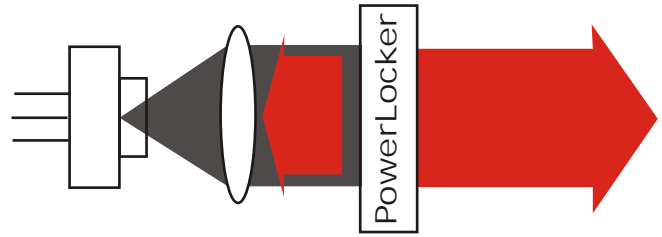
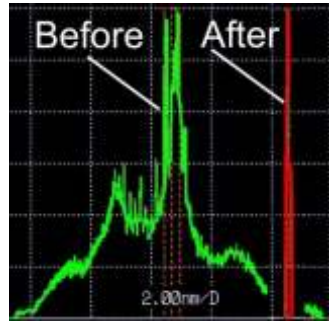


## Description:

Ondax's PowerLocker™ increases the spectral brightness of high power laser diodes and locks their emission wavelength. The short external cavity enabled by the PowerLocker™ provides better mode selection than systems based on Littrow and Littman cavities.

The PowerLocker™ is a volume holographic glass grating which reflects a specified wavelength at a given reflectivity.



Visit our online store at  
[www.ondax.com](http://www.ondax.com)  
 for a list of our current inventory

## Features:

- Reduces thermal dependence of lasers
- Increases spectral brightness of lasers
- Locks at one wavelength
- Improves diode yield
- Stable and reliable
- High damage threshold >170MW/cm<sup>2</sup>
- Standard wavelengths: 405, 658, 780.25, 785, 794.7, 808, 920, 938, 976, 981, 1064nm, and C band
- Custom wavelengths: 350nm to 3micron

## Applications:

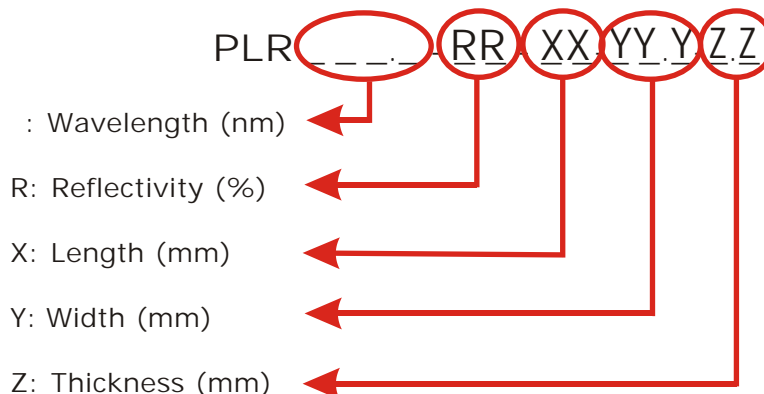
Diode pumped solid state lasers (DPSSL), Raman spectroscopy, RGB sources, Frequency doubling, Gas sensing, Ranging, Rb lasers, Bio instrumentation, Graphic arts (printing and digital imaging), Beam combining, Metrology, etc.

## Specifications:

Parameter*	Units	Specification		
		Min.	Typ.	Max.
Wavelength tolerance**	nm	-0.5		+0.5
Wavelength variation	nm	-0.1		+0.5
Temperature dependence	nm/deg.C		0.01	
Reflectivity tolerance	%	-0.5		+0.5
Reflectivity variation	%	-0.5		+0.5
Bandwidth (FWHM)	nm		0.2	
Standard dimensions***				
Single emitter			2 x 1.5	
Bar			12 x 1.75	
Stack			12 x 15	

\* Terms described on page 2  
 \*\* Tolerance of +/- 0.1nm available  
 \*\*\* Custom dimensions available

### PART NUMBERING SYSTEM:



**Wavelength (  $\lambda_{spec}$  )**

The specified filter wavelength, in nanometers.

**Wavelength Tolerance (  $\Delta\lambda_{tol}$  )**

The allowed wavelength tolerance of the part, in nanometers, such that the following is true for all positions on the filter:

$$\begin{aligned} \lambda_{max} &< \lambda_{spec} + \Delta\lambda_{tol} \\ \lambda_{min} &> \lambda_{spec} - \Delta\lambda_{tol} \end{aligned}$$

**Maximum Wavelength Variation (  $\Delta\lambda_{max}$  )**

The maximum allowed spatial variation of wavelength, in nanometers, within a single filter defined as .

$$\Delta\lambda_{max} = \lambda_{max} - \lambda_{min}$$

**Reflectivity (  $R_{spec}$  )**

The reflectivity of the Bragg mirror, in percent.

**Reflectivity Tolerance (  $\Delta R_{tol}$  )**

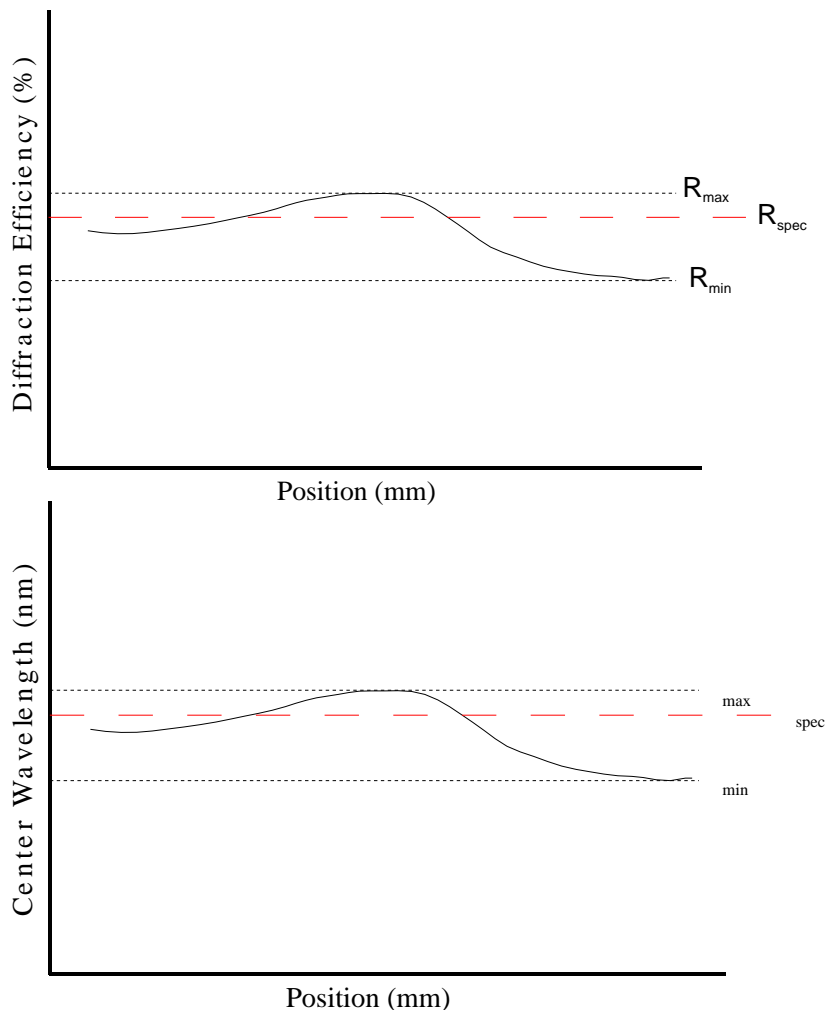
The allowed reflectivity tolerance of the Bragg mirror, in percent, such that the following is true for all positions on the filter:

$$\begin{aligned} R_{max} &< R_{spec} + \Delta R_{tol} \\ R_{min} &> R_{spec} - \Delta R_{tol} \end{aligned}$$

**Maximum Reflectivity Variation (  $\Delta R$  )**

The maximum allowed spatial variation of reflectivity within a single filter, in percent, defined as:

$$\Delta R = R_{max} - R_{min}$$



All information contained herein is believed to be accurate and subject to change without notice. All rights reserved. No responsibility is assumed for its use. Ondax, Inc. reserves the right to make changes, without notice, to product design and product component.