

**TECHSPEC® 532nm 2X - 8X Gemma® Variable Beam Expander**



Stock #15-545 **3 In Stock**

⊖ 1 ⊕ ₹1,03,226

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**General**

Beam Expander **Type:**

Continuous Variable Magnification **Style:**

**Physical & Mechanical Properties**

152.90 (without end caps) **Length (mm):**

432 **Weight (g):**

48 **Housing Diameter (mm):**

<1 **Pointing Accuracy (mrad):**

## Optical Properties

14.5 **Entrance Aperture (mm):**

30 **Exit Aperture (mm):**

2X- 8X **Expansion Power:**

**Fused Silica** (Corning 7980) **Substrate:**

>97.5 @DWL **Transmission (%):**

Laser V-Coat (532nm) **Coating:**

532 **Design Wavelength DWL (nm):**

**Transmitted Wavefront, P-V:**  
<N10 for Input Beam 3mm (2X-6X)  
<N10 for Input Beam 2.5mm (2X-7X)  
<N5 for Input Beam 2mm (2X-8X)

R<sub>abs</sub> <0.25% @ 532nm **Coating Specification:**

10 J/cm<sup>2</sup> @ 532nm, 20ns, 20Hz **Damage Threshold, By Design:**

Non-Rotating Optics **Divergence Adjustment:**

10 J/cm<sup>2</sup> @ 532nm, 20ns, 20Hz **Damage Threshold, Pulsed:**

## Threading & Mounting

Input: Male M30 x 1.0  
Output: Female M42 x 0.5 **Mounting Threads:**

## Regulatory Compliance

[View](#) **Certificate of Conformance:**

United States **Country of Origin:**

Edmund Optics India Private Limited **Imported By:**

## Custom

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- 2X–8X Continuous Magnification
- Non-Rotating Lenses Minimize Beam Wander
- Compact Galilean Designs with Fixed Housing Length
- **TECHSPEC® Draconis® Broadband Beam Expanders** Also Available

TECHSPEC® Gemma® Variable Beam Expanders are ideal for high power laser applications where magnification changes may be required, such as prototyping or R&D. TECHSPEC Variable Beam Expanders feature  $\lambda/4$  transmitted wavefront, Galilean designs, and high laser damage threshold AR coatings to ensure maximum transmittance while minimizing ghost reflections. Additionally, these beam expanders use internal translation and focusing mechanisms to continuously adjust magnification and laser divergence without affecting overall housing length. TECHSPEC® Gemma® Variable Beam Expander allow for continuous magnification change over the full magnification range.

TECHSPEC® Gemma® Variable Beam Expanders can be used to determine a system's required beam magnification in the prototyping phase of development. **TECHSPEC® Draconis® Broadband Beam Expanders** are available for production or OEM implementation. Please contact our Sales Department for custom magnification requirements.