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TECHSPEC® 20X, NIR Vega® Broadband Beam Expander

TECHSPEC® Vega™ Broadband Beam Expanders

Stock **#39-747** CONTACT US

- 1 + **C$1,386**.00

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Volume Pricing	
Qty 1-9	**C$1,386.00** each
Qty 10-24	**C$1,218.00** each
Qty 25-99	**C$1,085.00** each
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Product Downloads

General

Type:
Beam Expander

Style:
Fixed Magnification

Physical & Mechanical Properties

Length (mm):
130.66

Weight (g):
436

Housing Diameter (mm):
48.00

Optical Properties

Entrance Aperture (mm):
4.5

Exit Aperture (mm):
31.5

Expansion Power:
20X

Substrate:
Fused Silica (Corning 7980)

Transmission (%):
>95.8 (nominal)

Angle of Incidence (°):
0

Coating:
Laser NIR (1030-1550nm)

Design Wavelength DWL (nm):
Broadband

Transmitted Wavefront, P-V:
λ/10 for 1.1mm input beam (nominal, λ = DWL)

Wavelength Range (nm):
1030 - 1550

Coating Specification:
R_{avg} ≤0.7% @ 1030 - 1550nm @ 0° AOI

Damage Threshold, By Design:
2 J/cm^2 @ 1064nm, 20ns, 20Hz

Divergence Adjustment:
Rotating Optics

Damage Threshold, Pulsed:
2 J/cm^2 @ 1064nm, 20ns, 20Hz

Threading & Mounting

Mounting Threads:
Input: Male M30 x 1
Output: Female M42 x 0.5

Regulatory Compliance

RoHS 2015:
Compliant

Certificate of Conformance:
View

Reach 250:
Compliant

Product Details

- AR Coated for Broadband Tunable Laser Sources
- Fixed Magnifications Available from 1.5X to 20X
- Divergence Adjustable through Rotating Optical Design

TECHSPEC® Vega® Broadband Beam Expanders are designed for demanding tunable laser sources. These compact beam expanders are optimized at a wide range of wavelengths, with designs achieving λ/10 transmitted wavefront error and no internally focusing ghost images for compatibility with high power lasers. TECHSPEC Vega Broadband Beam Expanders are easily integrated into prototype and advanced applications while maintaining quality across the adjustment range. They are ideal for medical laser applications employing Thulium and Holmium sources.

Note: The length of these beam expanders will change upon divergence adjustment, typically by 1 to 2mm from the specified length.

TECHSPEC Vega® Laser Line Beam Expanders are also available. For more cost sensitive applications, Edmund Optics also offers **TECHSPEC Scorpii® Nd:YAG Beam Expanders**. For HeNe laser applications, **TECHSPEC Arcturus® HeNe Beam Expanders** are available. For higher precision applications where sliding optics are necessary, please see our **TECHSPEC Draconis® Nd:YAG Laser Line Beam Expanders** or **TECHSPEC Draconis® Broadband Beam Expanders**. For broadband or ultrafast applications, **TECHSPEC Canopus® Reflective Beam Expanders** are available.

To learn more about the difference between the 2µm and 2µm low OH^- content beam expanders, along with the different types of fused silica, review our **UV vs. IR Grade Fused Silica application note**.

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.**