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6 x 6 x 1mm, 1030nm SHG, Type I BBO Nonlinear Crystal



Mounted Type I BBO Nonlinear Crystal

Stock **#15-278** **5 In Stock**

⊖ 1 ⊕ C\$938⁰⁰

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General

Nonlinear Crystal **Type:**

SHG @ 1030nm, Type I **Typical Applications:**

Mount is 25.4mm Dia., 6mm Thick Unthreaded Black Anodized Metal Mount (see drawing for more information) **Note:**

BBO **Crystal Type:**

<0.1mm x45° **Protective Chamfer:**

Physical & Mechanical Properties

6.0 x 6.0 +0.0/-0.1 **Dimensions (mm):**

1.00 +0.0/-0.1 **Thickness (mm):**

5.70 **Clear Aperture CA (mm):**

<20 **Parallelism (arcsec):**

<5 **Perpendicularity (arcmin):**

Optical Properties

20-10 **Surface Quality:**

AR Coating **Coating:**

1030 **Design Wavelength DWL (nm):**

$\lambda/8$ **Surface Flatness (P-V):**

S1 & S2: $R_{avg} < 3\%$ @ 515 - 1030nm **Coating Specification:**

10 J/cm² @ 1064nm, 10ns, 10Hz **Damage Threshold, By Design:**

10 J/cm² @ 1064nm, 10ns, 10Hz **Damage Threshold, Pulsed:**

23.4/90 **Orientation Θ/Φ (°):**

Threading & Mounting

Mounted **Mount:**

6 (unthreaded) **Mount Thickness (mm):**

25.4 **Mount Diameter (mm):**

Regulatory Compliance

[Compliant](#) **RoHS 2015:**

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

[Compliant](#) **Reach 247:**

Product Details

- BBO Crystals for Frequency Conversion of 800nm and 1030nm Lasers
- LBO Crystals for Frequency Conversion of 1030nm and 1064nm Lasers
- High Damage Thresholds Up to 10 J/cm² @ 1064nm, 10ns, 10Hz
- Broad Transparency Range from the UV to the IR

Nonlinear Crystals of either β -barium borate (BBO) or lithium triborate (LBO) are used for frequency conversion of laser sources. BBO crystals feature thicknesses from 0.2mm to 0.5mm to minimize group velocity mismatch and are ideal for frequency doubling or tripling of Ti:Sapphire and Yb:doped laser pulses. The critical and noncritical phase matching LBO crystals are ideal for second or third harmonic generation of Nd:YAG and Yb:doped lasers. Nonlinear Crystals with 20-10 surface quality and $\lambda/10$ (LBO) or $\lambda/8$ (BBO) surface flatness provide the broad transparency range and large nonlinear coefficient needed for the harmonic generation of fundamental laser frequencies. Each crystal features a protective anti-reflection (AR) coating that minimizes reflection and limits fogging from ambient conditions.