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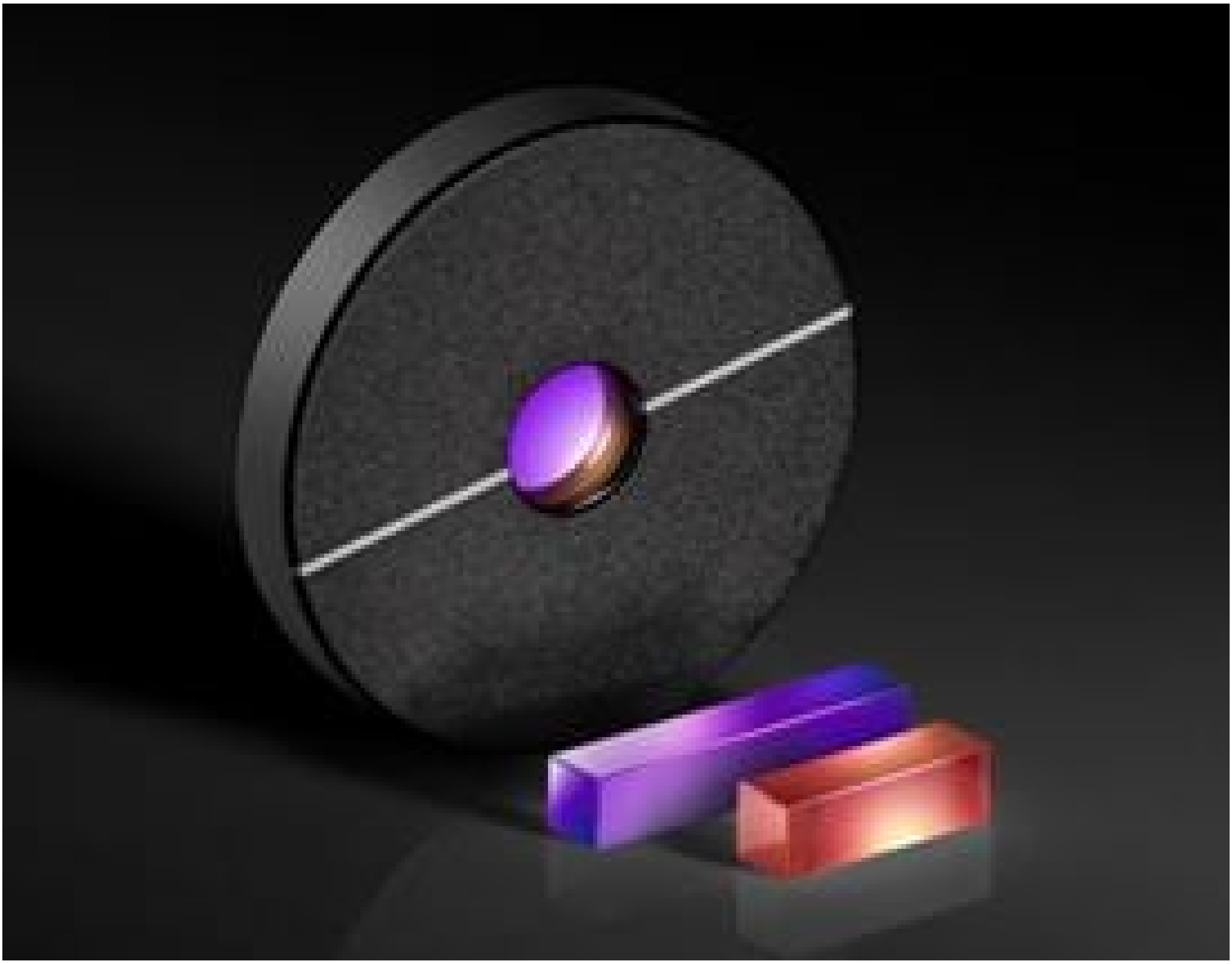
3 x 3 x 10mm, 1064nm THG, Type II LBO Nonlinear Crystal



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General

Type:
Nonlinear Crystal

Typical Applications:
THG @ 1064nm, Type II

Crystal Type:
LBO

Protective Chamfer:
<0.1mm x 45°

Physical & Mechanical Properties

Dimensions (mm):
3.0 x 3.0 +0.0/-0.1

Thickness (mm):
10.00 +0.0/-0.1

Parallelism (arcsec):
<20

Perpendicularity (arcmin):
<5

Optical Properties

Surface Quality:
20-10

Coating:
AR Coating

Design Wavelength DWL (nm):
1064

Surface Flatness (P-V):
λ/10

Coating Specification:
S1: 532 & 1064nm AR Coating
S2: 355nm AR Coating

Damage Threshold, By Design:
10 J/cm^2 @ 1064nm, 10ns, 10Hz

Damage Threshold, Pulsed:
10 J/cm^2 @ 1064nm, 10ns, 10Hz

Orientation Θ/Φ (°):
42.2/90

Threading & Mounting

Mount:
Unmounted

Regulatory Compliance

RoHS 2015:
Compliant

Reach 219:
Compliant

Certificate of Conformance:
View

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/cm^2 @ 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 λ/10 (LBO) or λ/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.

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