

FOCtek provide four kinds of electro-optic crystal BBO, KTP, LiNbO₃, LiTaO₃ with z-cut, AR coating, and Au-electrodes.

BBO

BBO crystals with Z-cut is an excellent electro-optic crystal combining good physical properties, it's suitable for high power applications. It launches a super Q-switch for a cw diode pumped Nd:YAG laser with average power >50W. Please refer to Page 14 for more information about BBO crystal.

We can provide as large as 6x6x25mm BBO for high power application. The standard BBO for Q-Switch as:

Part No.	Size (mm)	Orientation	Coating	Unit Price
				Small Qty <5pcs
BBO101	3x3x18	Z-Cut	Z-face AR coating, X-face Au coating	\$ 499
BBO102	3x3x20	Z-Cut	Z-face AR coating, X-face Au coating	\$ 559

■Please contact us for Quotation of volume quantity

KTP

KTP has promising E-O and dielectric properties comparable to those of LiNbO₃, which makes it extremely useful to various E-O devices. The following table gives the comparison of KTP and those crystals commonly used E-O modulator materials:

Material			Phase			Amplitude		
	ε	n	r pm/V	k 10 ⁻⁶ /°C	n ⁷ r ² /ε (pm/V) ²	r pm/V	k 10 ⁻⁶ /°C	n ⁷ r ² /ε (pm/V) ²
KTP	15.4	1.80	35.0	31	6130	27.0	11.7	3650
LiNbO ₃	27.9	2.20	31.0	82	7410	20.1	42	3500
KD*P	48.0	1.47	26.4	9	178	24.0	8	178
LiIO ₃	5.9	1.74	6.4	24	335	1.2	15	124

When these properties are combined with high damage threshold, low optical loss at high average power, wide optical bandwidth, thermal and mechanical stability, KTP crystals are expected to replace LiNbO₃ crystals as E-O modulators, especially for mode-locking diode laser pumped Nd:YAG and Nd:YLF lasers as well as Ti:Sapphire and Cr:LiSrAlF₆ lasers.