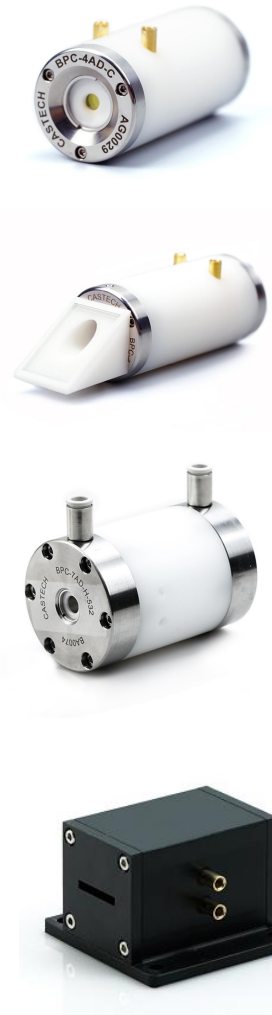


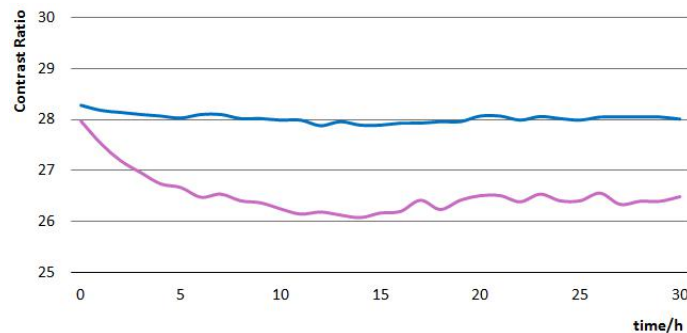
BBO Pockels Cells

BBO Pockels cell is a laser device based on electro-optic effect. When a voltage is applied to the electro-optic crystal, the refractive index of the crystal will change and the phase difference caused by the birefringence of the polarized light transmitted along the optical axis will cause the change of polarization state after exiting. The working principle of the BBO Pockels cell is based on the transverse electro-optic effect, so the working voltage can be effectively reduced by changing the size of the BBO crystal. CASTECH provides BBO Pockels cells in a range of configurations to adapt to different use conditions even unique and demanding applications. Due to its low ringing effect, repetition frequency of CASTECH's Pockels cell can go as high as 2 MHz, while by working with CASTECH' driver, its repetition frequency can reach up to 1 MHz. CASTECH also provides BBO Pockels cells with polarizers, wave plates and ceramic plates as requested.

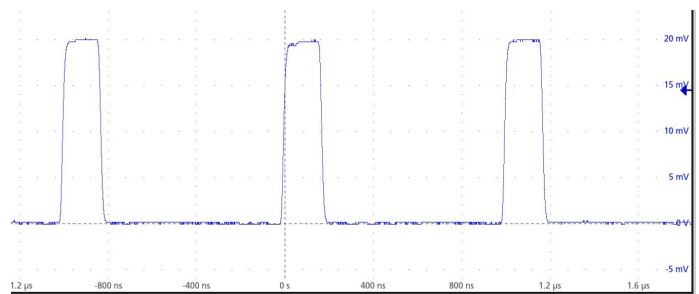


Applications

- Q-switching
- Regenerative amplifier
- Pulse picker
- Cavity dumping
- High speed optical switch
- Beam chopper
- Optical power stabilizer



CASTECH products (blue) Contrast Ratio @1 MHz



Typical waveform @1 MHz

BBO Pockels Cells

Pockels Cells Model Number: BPT-alq-b-w

Type(t)	Effective Clear Aperture(a)	Crystal Length(l)	Cascade type(q)	Optional Accessories(b)	Wavelength(w)
A (Square)	3 (2.6 mm)	A (20 mm)	S (Single)	C (Ceramic)	355 nm
C (Round)	4 (3.6 mm)	B (25 mm)	D (Double)	L (Water Cooling)	532 nm
S (Special aperture)	5 (4.6 mm)	C (16 mm)	T (Triple)	W (Wave plate)	800 nm
	6 (5.6 mm)	D (14 mm)	...	B (Brewster window)	1030 nm
	7 (6.6 mm)	...		A (Brewster window & Wave plate)	1064 nm
	8 (7.6 mm)			N (Nothing)	1550 nm
	10 (9.6 mm)		
	12 (11.6 mm)				
	114 (1*14 mm)*				
	214 (2*14 mm)*				
	...				

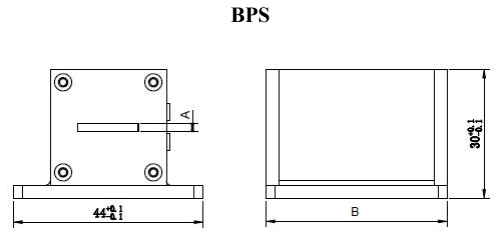
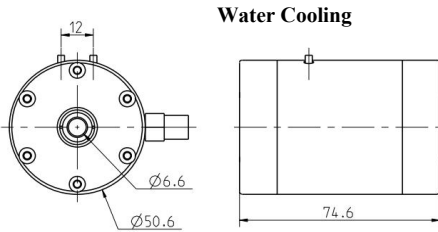
*Only applicable to S (special aperture) type products

Typical Specifications*

Clear Aperture	Voltage Contrast Ratio (VCR) @1064 nm	Rise/Fall Time	Cascade Type	Cooling Method	Transmission @1064nm
3~6 mm	≥1200:1	<10 ns	Single	Conduction Cooling	≥99%
3~6 mm	≥1000:1	<10 ns	Double	Conduction Cooling	≥98.5%
7mm	≥500:1	<20 ns	Double	Water Cooling	≥98.5%
8 mm	≥500:1	<20 ns	Double	Water Cooling	≥98.5%
12 mm	≥400:1	<20 ns	Double	Water Cooling	≥98.5%

*Damage threshold: 1GW/cm² @ 1064 nm, 10 ns & 50GW/cm² @ 1064 nm, 1 ps, & 200GW/cm² @ 1064 nm, 100 fs

Housing dimensions(mm):



	3AS	3BS	4AS	4BS	3AD	4AD	6AD
A	2.6	2.6	3.6	3.6	2.6	3.6	5.6
B	35	40	35	40	57.7	57.7	57.7
C	17.5	20	17.5	20	17.4	17.4	17.4
λ/4 voltage @ 1064 nm	3.5kV	2.8kV	4.9kV	3.9kV	1.8kV	2.5kV	3.7kV

