PulseSelect

APE

SINGLE PULSE SELECTOR

PulseSelect is an acoustooptical single pulse selector developed for the special demands of fs-technology. Pulse distortion is minimized by the low dispersion design and the use of reflective optics. The employment of an acoustooptical selection element offers the possibility of high repetition rates and high contrast ratio without the requirement for additional optical elements.

The pulse repetition rate can be reduced by using an adjustable internal frequency divider or by external triggering. With the APE **PulseSelect,** low division ratios down to $f_{REP}/2$ are possible. It has an integrated RF power limitation and protection circuit to prevent modulator damage. For highest stability the phase of the RF carrier frequency is locked to the seed pulses.

Besides the standard version suited for fs or ps modelocked Ti:Sa lasers, custom specific wavelength ranges in the VIS and UV are available.

For improved contrast ratio of above 6000:1 APE offers the double stage version **PulseSelect DUAL**.

- Reduction of the repetition rate of modelocked lasers
- Low dispersion
- Suitable for fs or ps modelocked lasers
- Division ratios down to $f_{REP}/2$ possible

PULSE SELECT

SPECIFICATIONS

Wavelength	500 ... 1000 nm (other ranges optional)
Diffraction efficiency	> 60% (TeO_2) [1]
	> 50% (SiO_2) [1]
Contrast ratio	> 500 : 1 [2]
Max. optical input power (P_{AV})	0,5 W (TeO_2) [3]
	2 W (SiO_2) [3]
Input frequency (f_{REP})	70 ... 85 MHz
	(to be specified with ± 0.5 MHz accuracy at time of order)
Input polarization	Horizontal (polarization rotator optional)
Division ratio	f_{REP} /20 ... f_{REP}/5000
	(f_{REP} /2 ... f_{REP} /260000 optional)
	or externally triggered

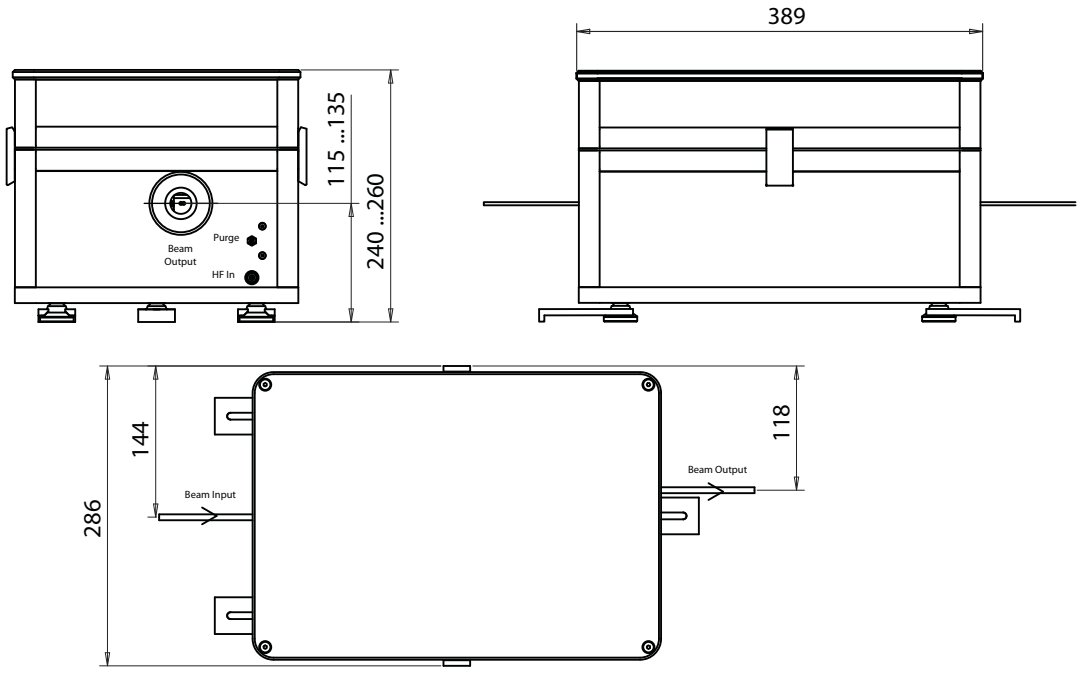
1)Percentage of pulse energy incident into the Bragg cell in diffracted pulse, measured at 800 nm and division ratio f_{REP} /20. At division ratio f_{REP} /2 the efficiency is typically around 25% (TeO_2) and around 10% (SiO_2), respectively.
2)> 500:1 applies for non-adjacent pulses. Main pulse to adjacent pulse contrast ratio is >75:1 (@ 800 nm, f_{REP} /20)
3)These values depend on the laser spot diameter in the crystal and thus apply only for a certain system configuration. Please consult our technical staff to determine the maximum input power level applicable for your laser system.

OPTIONS

High Power Ti:Sa optics (680 ...1080 nm, 4 W)
Double stage version Pulse Select DUAL

DIMENSIONS

Control Electronics (W*L*H in mm)	267 x 312 x 180
Optics Unit	



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