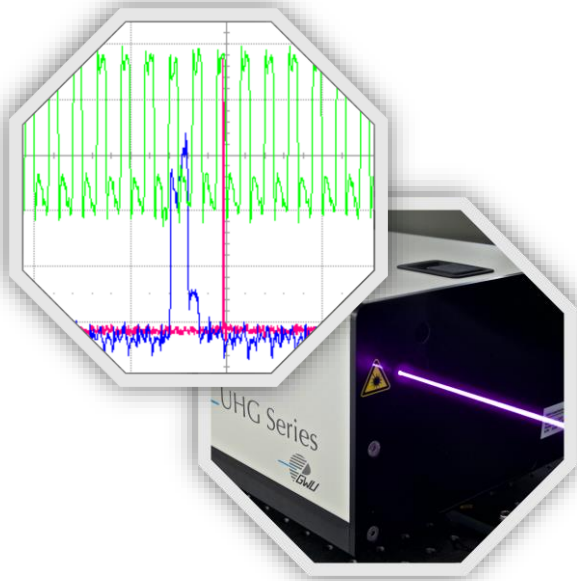


# UHG-PSK

## Ultrafast Pulse Selector for the UHG-Series



## UHG-PSK Specification

UHG-Series Pulse Selector	
<b>Bragg Cell</b>	SiO <sub>2</sub> for high power capability up to 5 W avg. input power
<b>Picking Ratio</b>	$v_{rep}/2 \dots v_{rep}/1023$ software controlled or arbitrary by external triggering ( $v_{rep}$ : Input repetition rate)
<b>Picking Efficiency &amp; Contrast Ratio</b> flexible user adjustment by software all numbers specified at 800 nm, 80 MHz input, 8 MHz output ( $v_{rep}/10$ )	<b>Contrast Enhancement</b> Diffraction Efficiency > 35% Contrast Ratio > 300:1 main to adjacent pulses > 400:1 main to nonadjacent pulses  <b>Efficiency Enhancement</b> Diffraction Efficiency >40% Contrast Ratio > 75:1 main to adjacent pulses > 500:1 nonadjacent pulses
<b>External Control</b>	Analog-in for amplitude modulation TTL for Start/Stop
<b>Other</b>	Controller and electronics integrated in optical head Completely software controlled

## Features and Benefits

High pulse picking efficiency and contrast ratio

Flexible Contrast / Efficiency adjustment

Repetition rate adjustment from single shot up to 40 MHz

Multi-pulses and burst mode

Convenient software control

Capable for femto- & picosecond pulses and high power

Modular design integrated in UHG-Series

## Applications

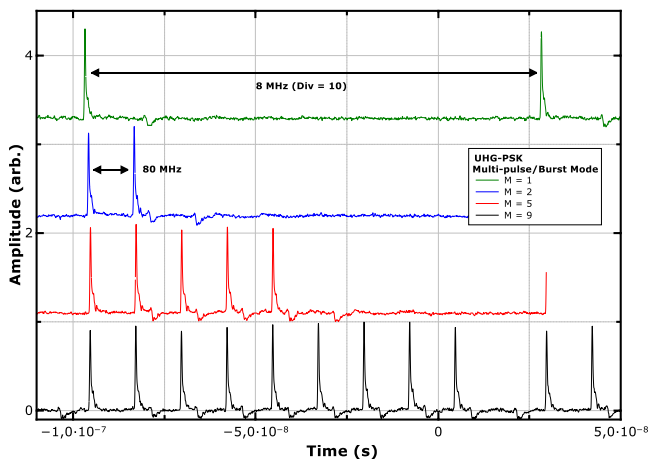
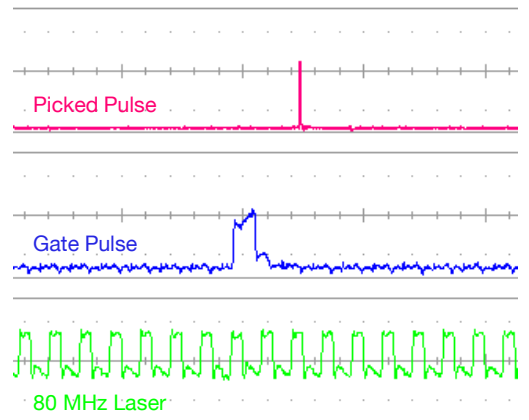
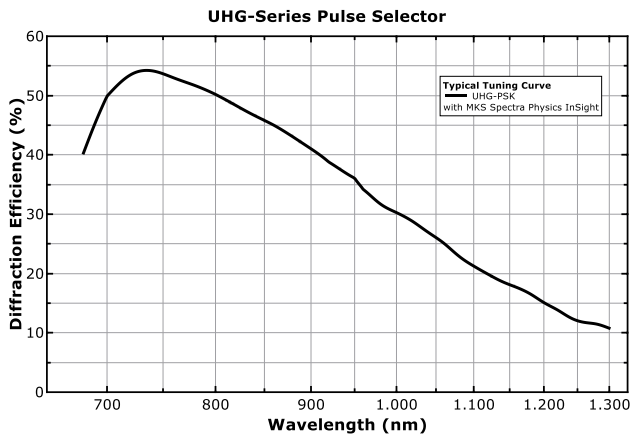
- Quantum-optics
- Non-linear spectroscopy
- Biophotonics
- Microelectronics

## Notes

All specifications depend in the pump laser specifications and performance. Please contact the factory or our sales representatives for details. All specifications are subject to change without notice.

# UHG-PSK Performance

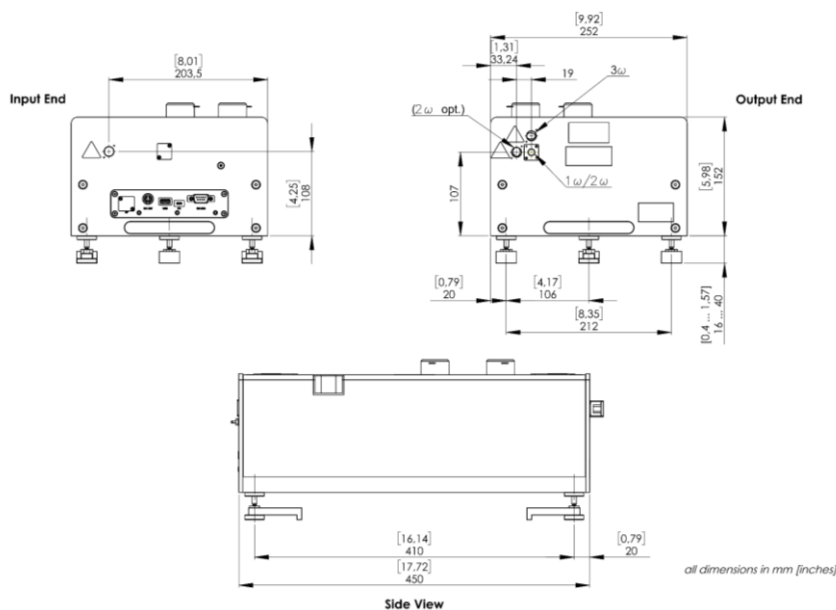
Typical performance with Spectra Physics Lasers, not a guaranteed or warranted specification



## Pump Laser Requirements

Wavelength	680 – 1080 nm
Repetition Rate $\nu_{rep}$	0.1 – 85 MHz
Polarization	Linear, horizontal built-in polarization rotator optionally available
Max. avg. Power	5 W
Sync. Signal	TTL/50 Ohms, > 100 mV, duty cycle in [10%-90%]

# UHG-Series Dimensions and Properties



## Mechanical + Utilities

Size UHG body  
(L x W x H):  
450 x 252 x 152 mm<sup>3</sup>

Weight UHG body:  
13 – 16 kg  
(depending on configuration)

Power requirements  
Electronics & Motorizers:  
100 – 240 V, 50 – 60 Hz

For dimensions with feet  
please refer to the  
dimensional drawing