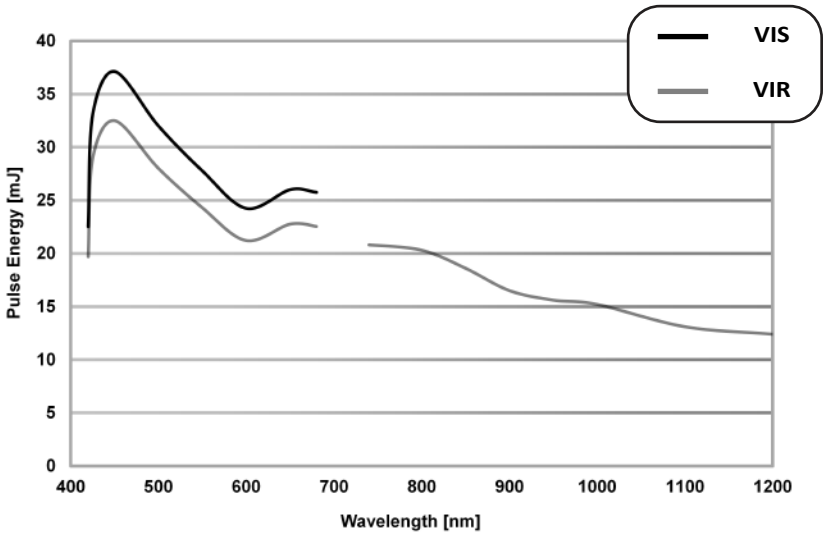
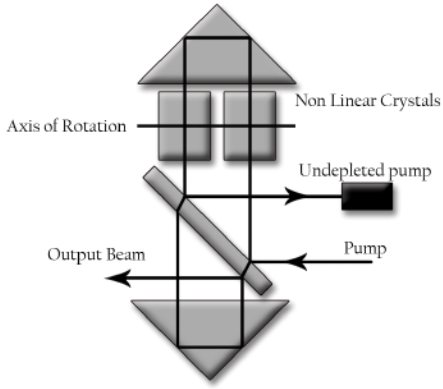
MagicPRISM™

The MagicPRISM™ is a compact, motorized optical parametric oscillator (OPO) module with a conversion efficiency as high as forty percent. The Ring-Cavity™ design is configured such that the pump and the OPO beams travel in the same direction. Two nonlinear crystals are positioned on a computer controlled, motorized rotation stage to acheive tuning. The pump beam is coupled into the Ring-Cavity™ and the signal/idler beams are coupled out of the ring cavity by a coated beam splitter. These design attributes produce highly stable and efficient output. The MagicPRISM™ OPO is offered as a stand-alone accessory to be pumped by the end-user's laser.

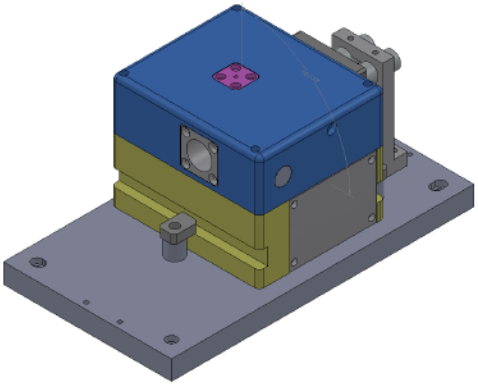
Compact OPO module for 355 or 532 nm Nd:YAG pump lasers



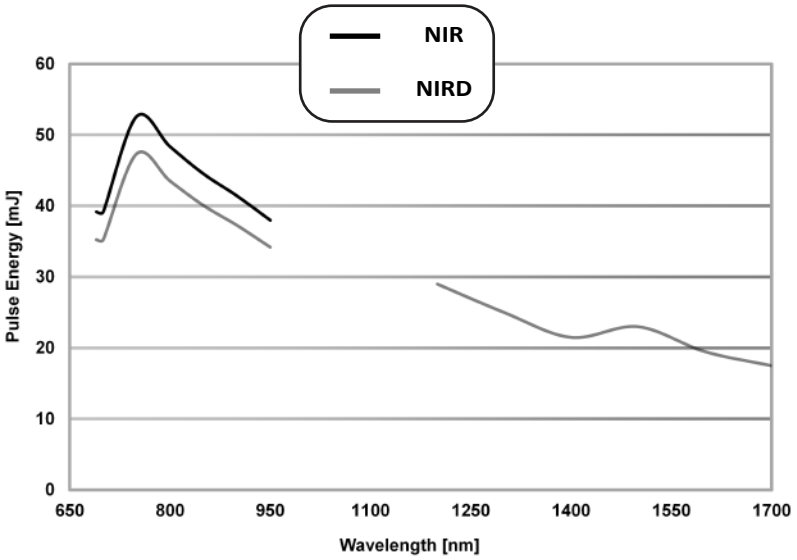
Typical performance when pumped with 90 mJ of 355 nm. Actual results may vary depending on pump laser.



Ring-Cavity™ design cancels walk-off, eliminates beam steering and produces highly stable and efficient output.



System includes an alignment kit for precise positioning of OPO module in pump laser beam path.



Typical performance when pumped with 140 mJ of 532 nm. Actual results may vary depending on pump laser.

OPOTEK LLC
TUNABLE LASER SYSTEMS

www.opotek.com

Specifications

	MagicPRISM™ VIS/VIR	MagicPRISM™ NIR/NIRD	Notes
Wavelength Range (nm)	420 - 680		VIS | motorized
	420 - 680 & 740 - 1200		VIR | motorized
		690 - 950	NIR | motorized
		690 - 950 & 1200 - 1700	NIRD | motorized

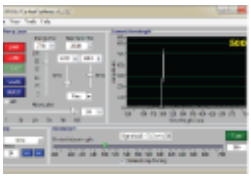
Pump Laser Requirements

Pump Wavelength (nm)	355	532	
Pump Energy (mJ)	75 - 100	150 - 200	
Pulse Length (ns)	5 - 10		FWHM
Beam Diameter (mm)	5 - 6		near-field
Beam Profile	> 75% Gaussian		near-field
Beam Divergence (mrad)	< 0.5		FWHM
Linear Polarization	Horizontal		with respect to OPO module orientation

Features

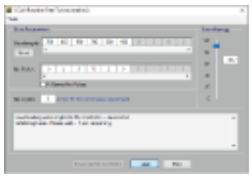
Alignment Kit	Hardware provided to align third-party pump laser to OPO module (mirrors and waveplate not included)
Computer Control	All OPO functions
Software Development Kit	Integration of system functions into third-party programming environments

Options



Wavemeter™

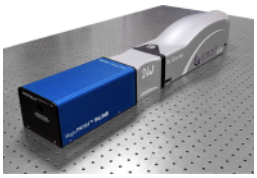
Real-time wavelength monitoring and Closed-Loop Tuning™



Fast Tuning™

NIR and NIRD only

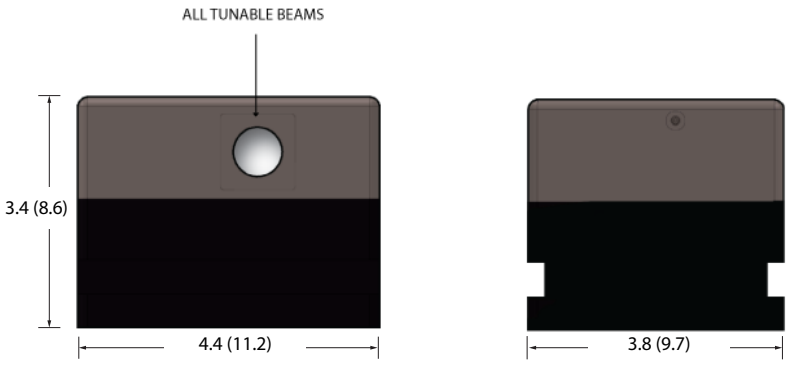
Wavelength can be tuned to any value within 690 - 950 or 1200 - 1700 nm at every pulse



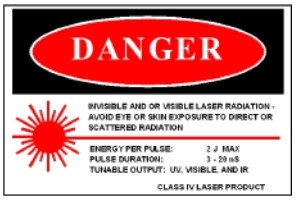
Q-smart 450 Adapter

Housing, hardware and optics for connecting OPO module to a Quantel Q-smart 450 pump laser

Dimensions



OPO Laser Head	3.6 lbs (1.6 kg)
OPO Control Electronics	8.8 (22.4) x 6.2 (15.8) x 3.2 (8.1) | 5 lbs (2.3 kg) | universal line voltage



All dimensions approximate in inches (centimeters).
All specifications are subject to change due to ongoing product improvements.