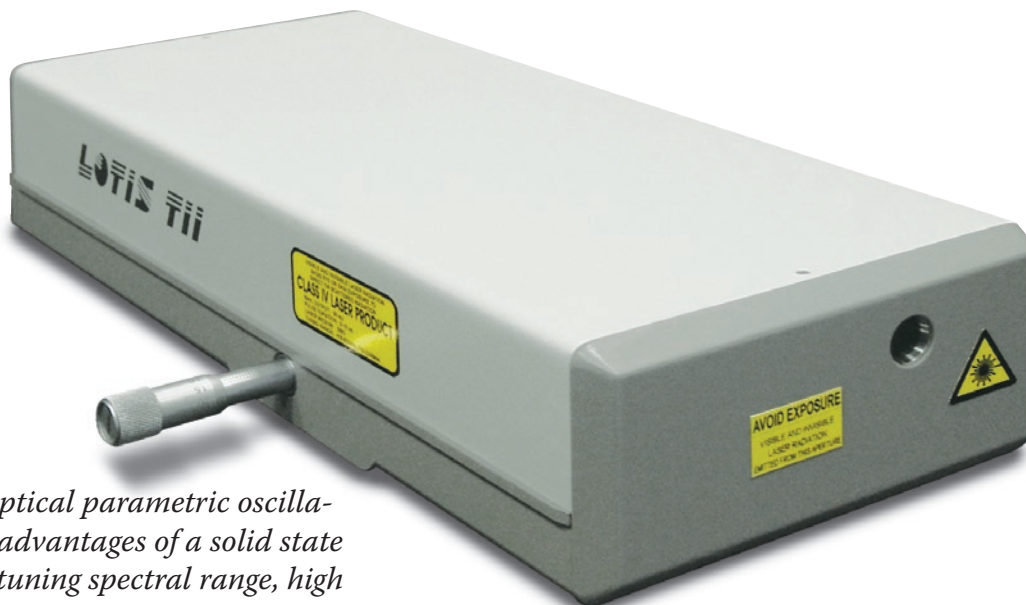


LT-2214 OPO

Solid State Tunable Converter

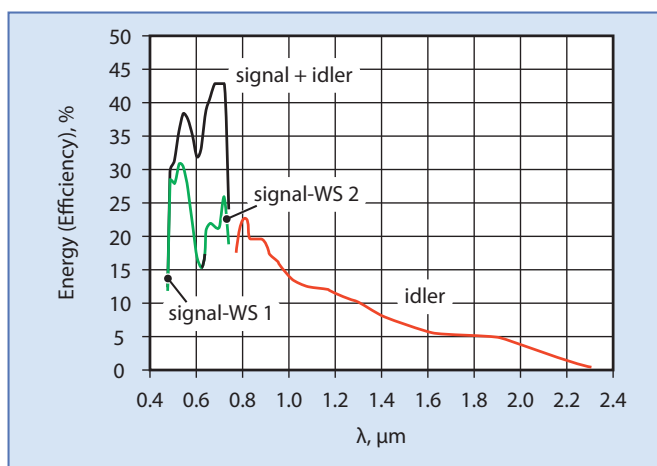


Our BBO-OPO (optical parametric oscillator) combines the advantages of a solid state laser with a wide tuning spectral range, high peak and average power and high conversion efficiency.

Advantages

- ❖ Reliable and efficient operation.
- ❖ One set of cavity mirrors for total tuning range.
- ❖ Installation and adjustment without additional aimed laser and spectral devices.
- ❖ Compensation beam displacement during tuning.
- ❖ Protection of BBO crystal from humidity by heating.

Efficiency of LT-2214 OPO



At pump energy $E_{355}=100$ mJ, 15 ns

Specification

Parameter		Value
Tuning range $\Delta\lambda$, nm	at signal wave (SW) at idler wave (IW)	410–690 715–2300
Typical linewidth $\delta\lambda$, nm		$\leq 0.5^*$
Beam divergence, mrad		4–8**
Phasematching		Type I
Pump radiation conversion efficiency at maximum of tuning curve (at 10 Hz), %	at SW+IW at SW	$\leq 40^{***}$ $\leq 30^{***}$
Pulse duration (FWHM), ns		1–2 ns shorter than pump pulse duration**
Pulse repetition rate, Hz		≤ 50
Polarization at SW and IW		Linear horizontal
Size L x W x H, mm (Weight, kg)		380 x 176 x 78 (6.5)

Pump Laser

Wavelength, nm	355
Pulse duration, ns	6–20
Pulse energy, mJ	40–150
Repetition rate, Hz	≤ 50
Beam diameter, mm	≤ 8
Beam shape	uniform without hot spots
Polarization	vertical

* at the 500 nm, depending on pump laser

** determined by the pump pulse duration and generated λ

*** typically for pump energy >70 mJ

