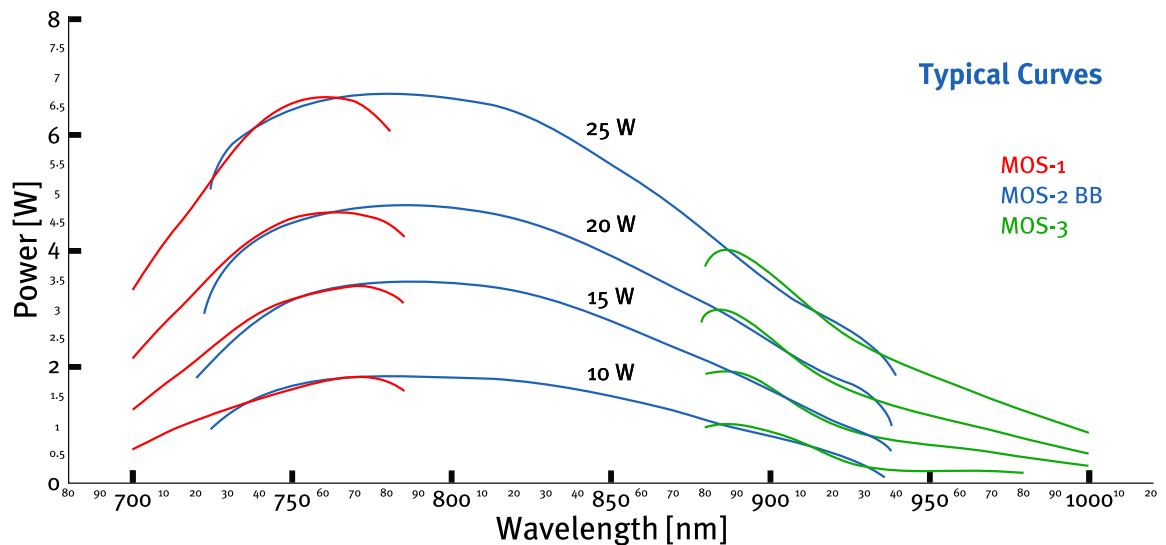


Matisse 2 TX

Pound-Drever-Hall Stabilized Titanium:Sapphire Ring Laser with Intracavity Modulator

- Narrow linewidth: Best spectral resolution commercially available
- Hands free operation with ELSA (Electronic Laser Self Alignment)
- Improved Housing: Faster Purge of Laser
- Extended scans over nanometers (requires wave-meter, optional fiber launch integrated in Matisse)
- High power output up to 7.0 W
- Field serviceable: optics change, maintenance, upgrades, conversion to Matisse 2 DX (Dye)
- Extension modules available from 210-4200 nm
- Low Amplitude Noise: Quiet Laser Operation
- Special optics for enlarged tuning range (668-1030 nm)

Tuning Range



	Millennia eV 25W	Millennia eV 20W	Millennia eV 15W	Millennia eV 10W
Specified Power ¹⁾	6.2 W	4.7 W	3.3 W	1.7 W
	MOS-1	MOS-2 BB	MOS-3	
Three Optic Sets ^{2) 3)}	690-770 nm	730-930 nm	880-1015 nm	

General Characteristics

Beam Radius ⁴⁾	0.6-0.7 mm (typical)
Beam Divergence	< 1.2 mrad (half angle)
Linewidth ⁵⁾	< 30 kHz rms / 100 msec, < 20 kHz rms / 100 µsec
Amplitude Noise	< 0.1 % rms (above pump noise, added in quadrature)
Scan Range ¹⁾	> 50 GHz
Beam Polarization	horizontal

Requirements

Pump Laser ⁶⁾	Millennia Series
Ambient Conditions	constant temperature in the 20-30 °C range, 80% max. rel. humidity, non condensing
Cooling	required for crystal (< 20 Watt)
Laboratory	vibrational isolated optical table, dust-free air (flow box)
Computer Control	Windows XP / Vista / 7 / 8 / 10, USB-Port

¹⁾ at approximately 780 nm

²⁾ non-standard tuning ranges upon request

³⁾ depending on pump power

⁴⁾ at Matisse output port

⁵⁾ relative to built-in reference cavity

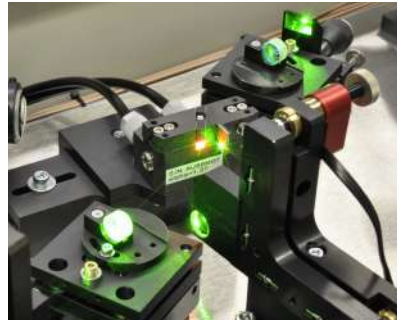
⁶⁾ please contact Sirah for compatibility with other pump lasers

Matisse 2 TX

Matisse 2 TX



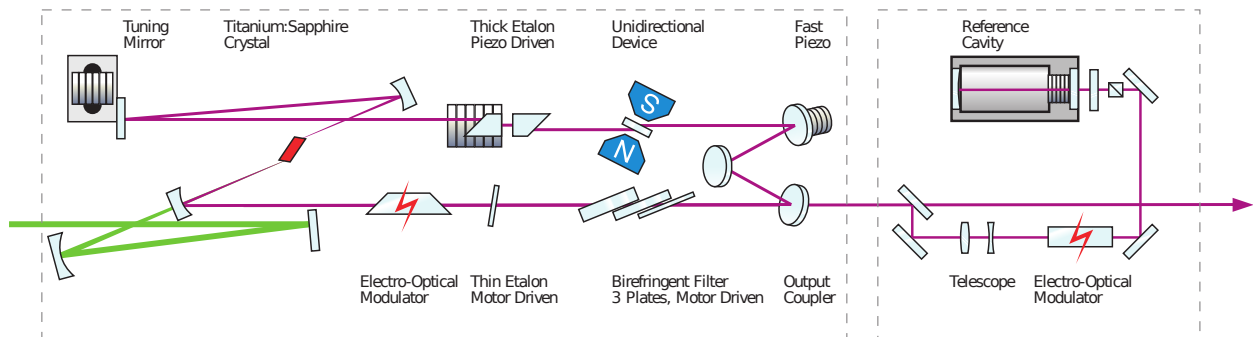
ELSA



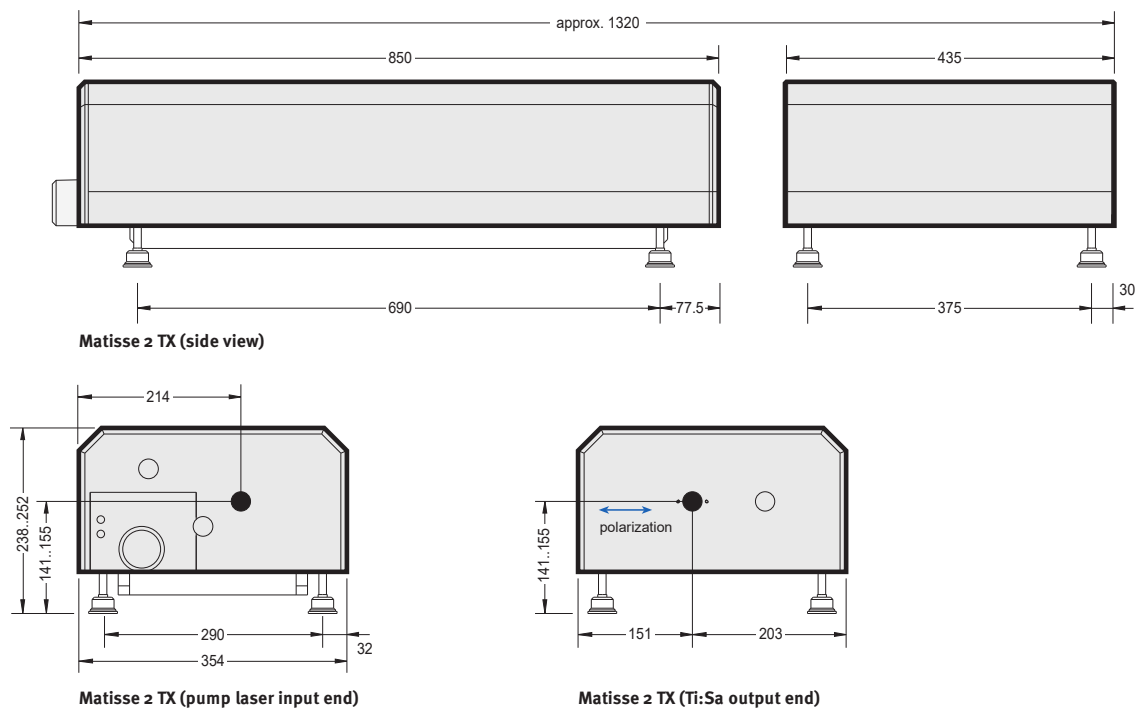
EOM



Optical Layout



Dimensions



All Dimensions in mm
 Specifications are subject to change without notice
 U.S. Patent 7,489,715



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