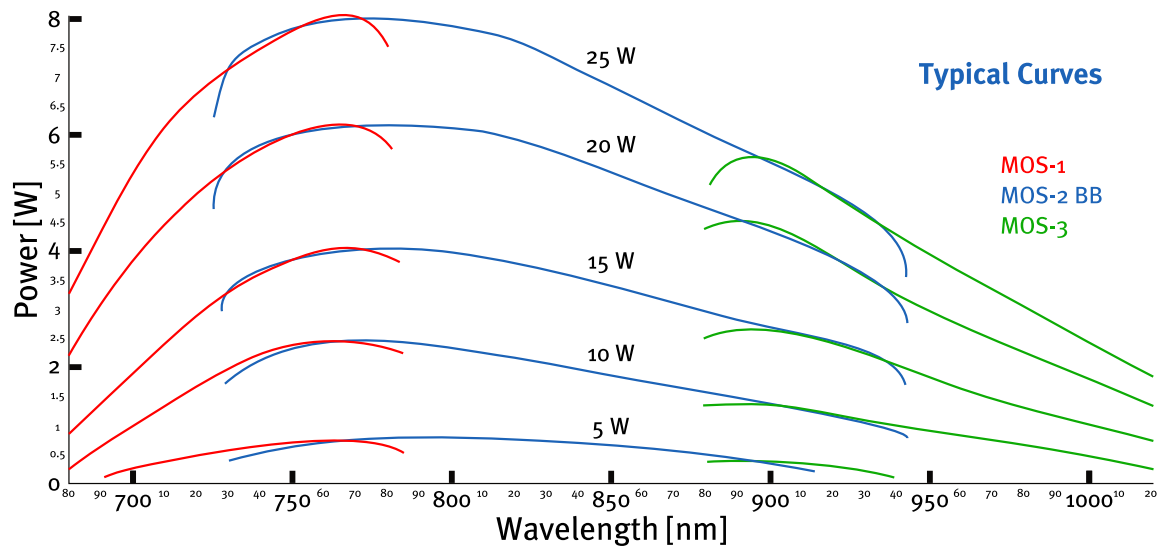


Matisse 2 TS

Actively Stabilized Titanium:Sapphire Ring Laser

- Narrow linewidth: High spectral resolution
- High power output up to 8.4 W
- Hands free operation with ELSA (Electronic Laser Self Alignment)
- Improved Housing: Faster Purge of Laser
- Intracavity EOM available
- Extended scans over nanometers (requires wavemeter, optional fiber launch integrated in Matisse)
- Field serviceable: optics change, maintenance, upgrades, conversion to Matisse 2 DS (Dye)
- Extension modules available from 210-4200 nm
- Low Amplitude Noise: Quiet Laser Operation
- Special optics for enlarged tuning range (662-1050 nm)

Tuning Range



	Millennia eV 25W	Millennia eV 20W	Millennia eV 15W	Millennia eV 10W	Millennia eV 5W
Specified Power ¹⁾	7.2 W	5.5 W	3.8 W	2.0 W	0.8 W
	MOS-1	MOS-2 BB	MOS-3		
Three Optic Sets ^{2) 3)}	680-780 nm	730-930 nm	880-1020 nm		

General Characteristics

Beam Radius ⁴⁾	0.6-0.7 mm (typical)
Beam Divergence	< 1.2 mrad (half angle)
Linewidth ⁵⁾	< 50 kHz rms / 100 msec, < 35 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

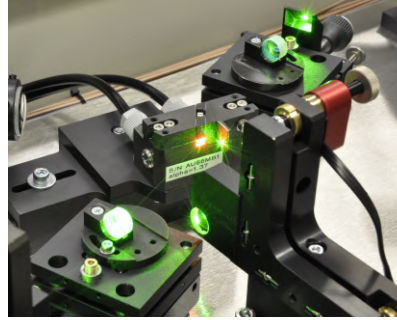
⁶⁾ please contact Sirah for compatibility with other pump lasers

Matisse 2 TS

Matisse 2 TS



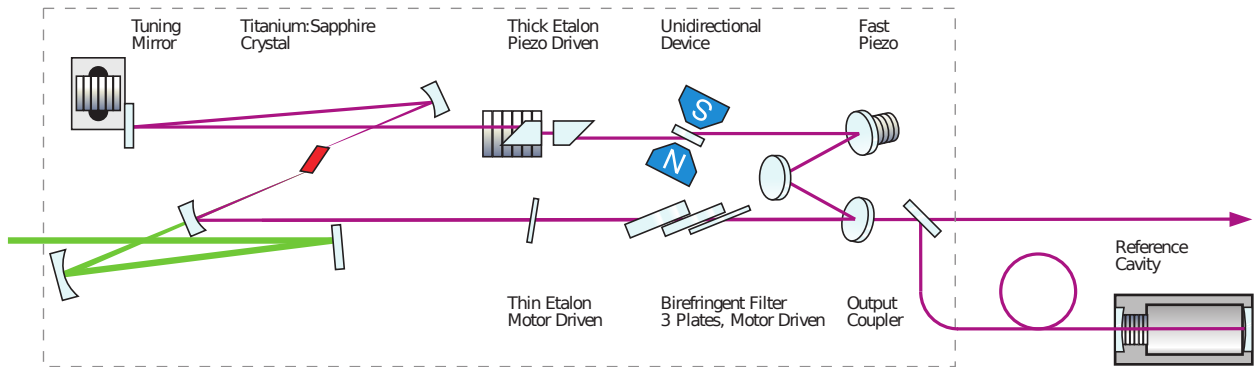
ELSA



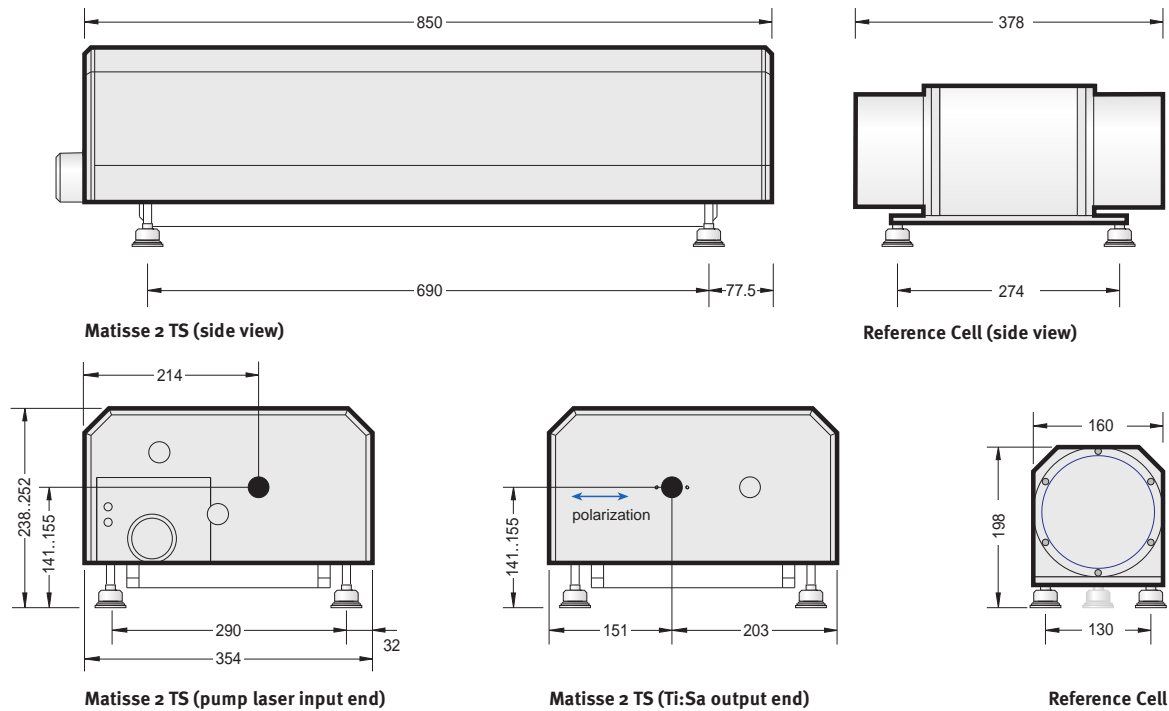
Matisse 2 TS + Ref Setup



Optical Layout



Dimensions



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



VISIBLE AND/OR INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT
POWER AND WAVELENGTH(S) DEPEND ON PUMP OPTIONS AND LASER CONFIGURATION

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