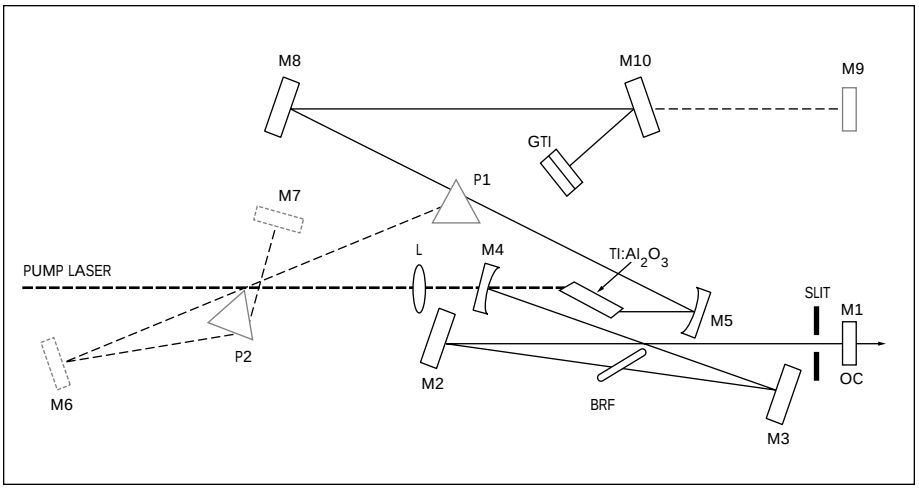


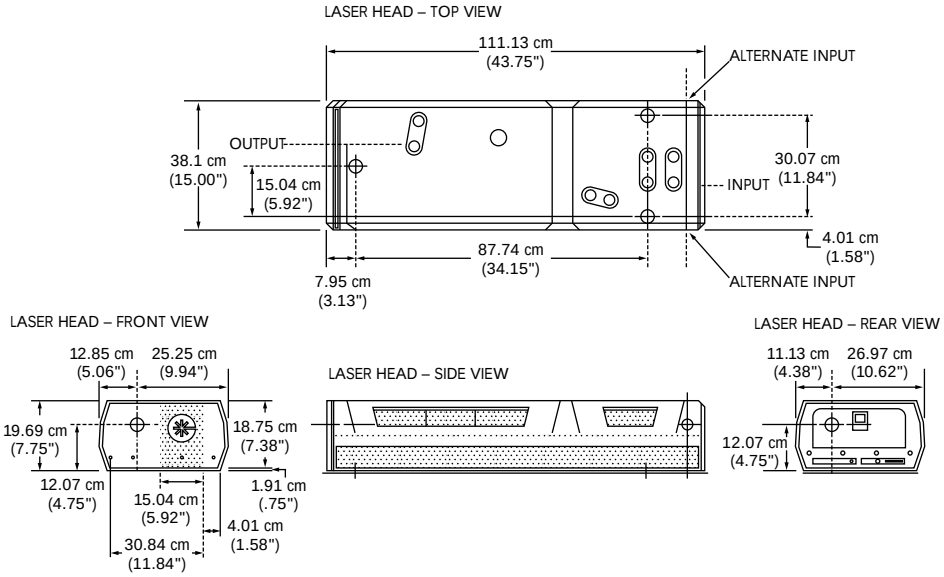
Nearly transform-limited picosecond pulses are generated by Coherent's patented Kerr Lens Modelocking (KLM) process in the picosecond cavity version of the Mira® 900-P Titanium:Sapphire Laser. The required intracavity Group Velocity Dispersion (GVD) for picosecond pulses is generated by a Gires-Tournois Interferometer end-mirror in the cavity. In the Mira 900-P, the intracavity GVD is automatically adjusted to the correct level as the laser is tuned, using a novel detection and feedback loop on the GT, called β-Lock.

The unique triple-cavity design of the Mira 900 allows easy conversion between the optional GT-compensated picosecond cavity and the prism-compensated femtosecond cavity. Either capability can be added to an existing Mira 900 system easily and at any time.

DIMENSIONS

Physical Dimensions (L x W x H)

111.1 x 38.1 x 19.7 cm
(43.75 x 15 x 7.75 in)



FEATURES

- **Passive, KLM modelocking mechanism**
- **Stable, soliton-like, transform-limited, picosecond pulses, using Gires-Tournois (GT) dispersion compensation**
- **Permanently aligned Gires-Tournois Interferometer**
- **β-Lock automatic dispersion-compensation control loop for easy, single-knob tuning**
- **Tunable output in the 700-1000 nm range**
- **High average power**
- **CW alignment cavity**
- **Unique, versatile, ease-of-use, triple-cavity design**
- **Easy conversion to optional prism-compensated femtosecond system**
- **Integral power level and cw detection, as well as synchronized output signal**
- **Small- or large-frame pump laser configurations**

COHERENT

Mira Model 900-P

SPECIFICATIONS[1]

Conversion Efficiency[2]		
SW, PW, MW Optics Sets	10%	
LW Optics Set	4%	
Autocorrelation[3]	<3 ps	
Repetition Rate	76 MHz	
Noise[4]	<2%	
Stability[5]	<5%	
Beam Diameter[6]	0.8 mm	
Beam Divergence[7]	1.7 mrad	
Spatial Mode[8]	TEM_{00}	
Polarization	horizontal	
Typical Tuning Ranges[9]		
with Pump Powers of	8W	14W
SW Optics Set	720-810 nm	710-810 nm
PW Optics Set	750-850 nm	750-850 nm
MW Optics Set	800-910 nm	790-910 nm
LW Optics Set	900-980 nm	900-1000 nm

[1] Specifications apply only with Coherent pump lasers.

[2] At the peak of the optics set as a percentage of pump power.

[3] Multiply by 0.65 $sech^2$ deconvolution factor for pulse duration.

[4] Measured rms in a 10 Hz to 2 MHz bandwidth.

[5] Power drift in any two-hour period after warm-up when crystal's cooling water is maintained ±0.1°C.

[6] $1/e^2$ diameter (±0.2 mm).

[7] Full angle divergence (±0.3 mrad).

[8] Typical measured M^2 value of <1.3.

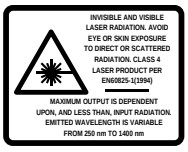
[9] System is shipped and installed with only one optics set, specified at time of purchase.

WARRANTY

Coherent offers a limited warranty for the Mira system. Please refer to the latest version of the Coherent, Inc., Laser Group, North American Price List *for full details of this warranty coverage.*

Coherent, Inc.
Laser Group
5100 Patrick Henry Drive
Santa Clara, CA 95054
Phone: *1-800-527-3786*
1-408-764-4983
FAX: *1-800-362-1170*
1-408-988-6838
E-mail: *tech_sales@cohr.com*
Web: *http://www.cohr.com*

Japan *+81 (3) 5635 8700*
Benelux *+31 (79) 3621313*
France *+33 (01) 6985 5145*
Germany *+49 (6071) 9680*
UK *+44 (1223) 424065*



Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

ISO 9002 REGISTERED

CE

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MC-SC021-97-5M0497-R1

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.