

Stable and reliable visible high performances CW lasers



MAIN FEATURES

- LASER OR AMPLIFIER OPERATION
- OUTPUT POWER UP TO 1W
- SINGLE FREQUENCY OPERATION
- SINGLE MODE OUTPUT $M^2 < 1.2$
- WAVELENGTH LOCKING CAPABILITY
- HIGH STABILITY OVER VIBRATION AND TEMPERATURE
- RELIABLE INDUSTRIAL GRADE COMPONENTS
- MAINTENANCE FREE
- MID-STAGE ACCESS, NARROW LINEWIDTH AND FIBER DELIVERY OPTIONS

APPLICATIONS

- RUBIDIUM ATOM COOLING AND TRAPPING
- BIOTECHNOLOGY
- PETAWATT LASER ALIGNING BEAM

EYLSA: Set it and forget it

With the new EYLSA platform stay focused on your research not on the laser.

The high performance design of the EYLSA 780 lasers is based on high stability laser diodes which are amplified by fiber amplifier stages and then frequency doubled with single-pass periodically poled crystals. For the most demanding applications, the EYLSA platform integrates wavelength locking input, monitoring output, and optional mid-stage access. The EYLSA's high performance design utilizes embedded air-cooling to provide exceptional high wall plug efficiency.

This robust architecture provides industry leading performance which is insensitive to both ambient temperature changes and environmental vibrations. The high reliability of EYLSA's integrated components ensures a long lifetime without any maintenance or preventive service (no realignment, no need to clean optics) and is guaranteed with a 2-year warranty.

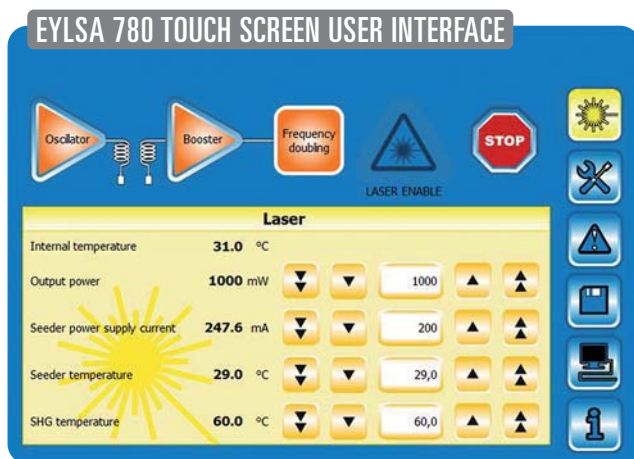


EYLSA SPECIFICATIONS

CHARACTERISTICS	UNITS	EYLSA-L-780.24-1-P-SS-W-FC	EYLSA-L-780.24-1-P-SS-M-FC	EYLSA-L-780.24-1-P-SN-W-FC	EYLSA-L-780.24-1-P-SN-M-FC	EYLSA-L-780.24-1-P-SS-W-FS	EYLSA-A-780.24-1-P-SS-W-FC
OPTICAL CHARACTERISTICS		LASER	LASER	LASER	LASER	LASER	AMPLIFIER + SHG
Wavelength	nm	780.24	780.24	780.24	780.24	780.24	780.24
Linewidth (1 ms integration) ¹	kHz	≤ 2500	≤ 2500	≤ 250	≤ 250	≤ 2500	depends on seeder
Coarse tunability	GHz	100	100	8	8	100	depends on seeder
Fine tunability	GHz	10	10	1	1	10	depends on seeder
Average output power	W	1	1	1	1	1	1
Power stability (1 hour)	%	+/- 1	+/- 1	+/- 1	+/- 1	+/- 1	+/- 1
Intensity noise (RMS, DC to 1 MHz)	%	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1	depends on seeder
OSNR (0.01 nm resolution)	dB	≥ 60	≥ 60	≥ 60	≥ 60	≥ 60	depends on seeder
Fundamental wavelength rejection	dB	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40	≥ 40
Mid-stage access at fundamental wavelength		NO	YES	NO	YES	NO	NO
Maximum mid-stage losses	dB	/	10	/	10	/	/
OUTPUT CHARACTERISTICS							
Output type ²		FC/APC single mode fiber	FC/APC single mode fiber	FC/APC single mode fiber	FC/APC single mode fiber	Free-space wavelength conversion module	FC/APC single mode fiber
Beam quality	M ²	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2	≤ 1.2
Beam profile		TEM00	TEM00	TEM00	TEM00	TEM00	TEM00
Beam diameter	mm	/	/	/	/	0.6 +/- 0.1	/
Pointing stability	μrad/C°	< 10	< 10	< 10	< 10	/	< 10
Polarization extinction ratio	dB	> 17	> 17	> 17	> 17	> 20	> 17
FACILITY REQUIREMENTS							
Supply voltage	VAC	110 – 240	110 – 240	110 – 240	110 – 240	110 – 240	110 – 240
Power consumption	W	≤ 250	≤ 250	≤ 250	≤ 250	≤ 250	≤ 250
Cooling		Air cooled	Air cooled	Air cooled	Air cooled	Air cooled	Air cooled
Operating temperature	°C	5 – 35	5 – 35	5 – 35	5 – 35	5 – 35	5 – 35
External seeder dimensions	mm ³	/	/	/	/	/	/
Laser box dimensions	mm ³	445 x 420 x 148	445 x 420 x 148	445 x 420 x 148	445 x 420 x 148	445 x 420 x 148	445 x 420 x 148
Laser head dimensions	mm ³	/	/	/	/	133 x 50 x 30	/
Fiber delivery length	m	2	2	2	2	1.5	2

¹ Narrower linewidth available with external seeder

² Collimated option available



DIMENSIONS

EYLSA Platform

- A 420 mm [16.53"]
- B 445 mm [17.52"]
- C 148 mm [5.82"]



For more information:
www.quantel-laser.com

