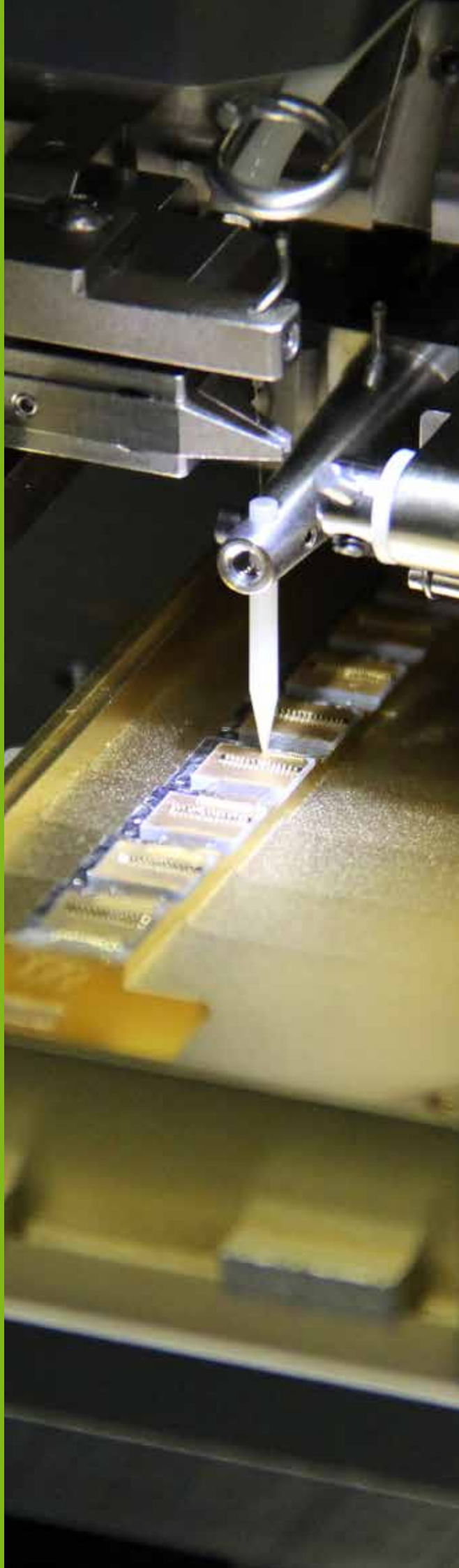


Flexibly Your Laser Partner

Convergent

Lyrae
Diode Catalog





LYRAE Multiemitter: Product Overview

Multiemitter Fiber Coupled Diode Laser Lyrae Series

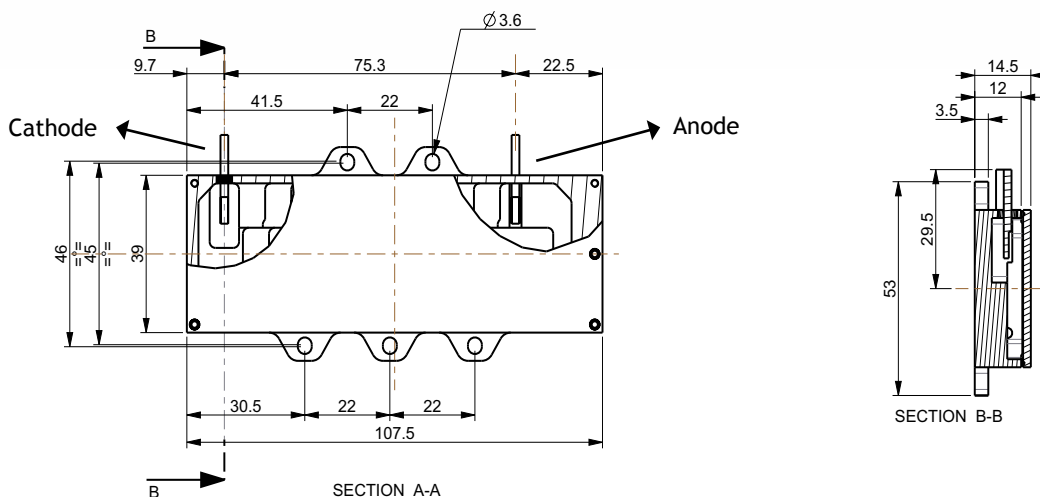
The Convergent Multiemitter Fiber Coupled Diode Laser Lyrae Series provides up to 100W on 135µm and 200µm core fiber, with a Numerical Aperture of 0.175 and excellent conversion efficiency (Wall Plug Efficiency in excess of 50% at operating conditions).

Main application of Lyrae Multiemitter packaged lasers is for air or water-cooled architectures for fiber laser pumping at 9xxnm, 793nm and 808nm, in CW and/or QCW configurations. Lyrae Series is also available on demand with VBG integrated wavelength stabilizer (BLs100 at 975nm, γLs100 at 793nm and δLs100 at 808nm).

Lyrae Multiemitter packaged lasers is based on Convergent Laser Diode Chip, which proprietary technology enable high power and very low voltage drop, ensuring therefore high conversion efficiency together with high reliability.



Mechanical Specifications



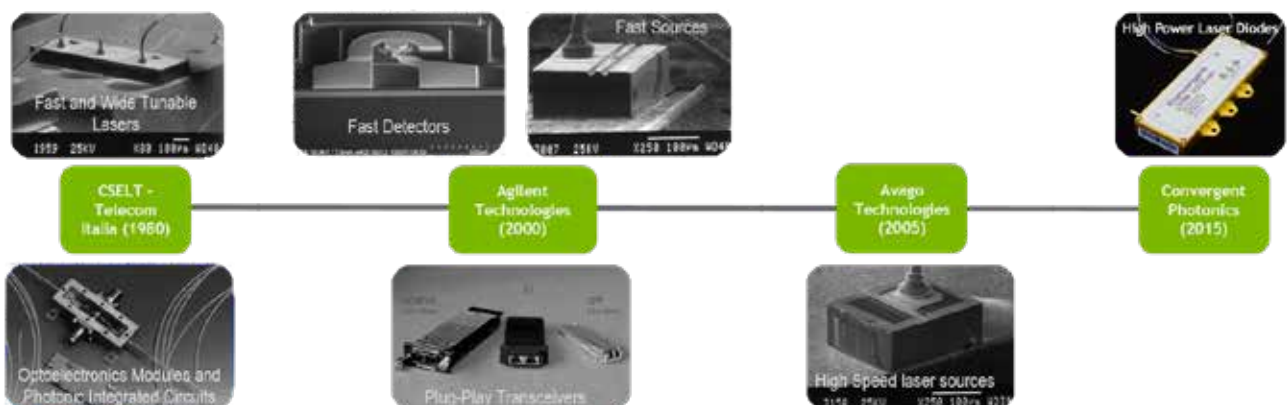
General Specifications

Parameter	αL-100			βL-100			γL-100			δL-100			Unit
	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
Laser Characteristics at:	100W Output Power						80W Output Power						
Emitted Wavelength	905	915	925	972	975	978	788	793	798	803	808	813	nm
Operating current (BOL)			13			13			10			10	A
Operating voltage		14	18		14	18		18	20		18	20	V
Wall plug efficiency	45	55		45	55		45	50		45	50		%
Power within 0.175	90			90			90			90			%
Fiber Characteristics:	(Nufern P/N: MM-S135/155-22FA)						(Nufern P/N: MM-S200/220-22FA)						
Fiber core diameter	133	135	137	133	135	137	196	200	204	196	200	204	μm
Fiber cladding diameter	153	155	157	153	155	157	217	220	223	217	220	223	μm
Coating diameter	335	350	365	335	350	365	335	355	375	335	355	375	μm
Fiber NA	0,20	0,22	0,24	0,20	0,22	0,24	0,20	0,22	0,24	0,20	0,22	0,24	
Pigtail length	1,2		2	1,2		2	1,2		2	1,2		2	m
Bending radius	35			35			35			35			mm
Operating temperature (*)		25			25			25			25		°C
Relative humidity		50			50			50			50		%

Notes: (*) T=25°C

Diode Fab heritage - Milestones

- Started in 1980 (Optical Technology Research Center for Telecom Italia)
- 2000-2005: R&D Site for Agilent Technologies (laser and fast detectors for Transceiver products)
- 2005: R&D and (2007) Production site (edge emitter Laser Sources) for Avago -2 million devices shipped to Product Line, no RFF-
- January 2015: part of Convergent Photonics for High Power Diode Laser technology



convergent



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