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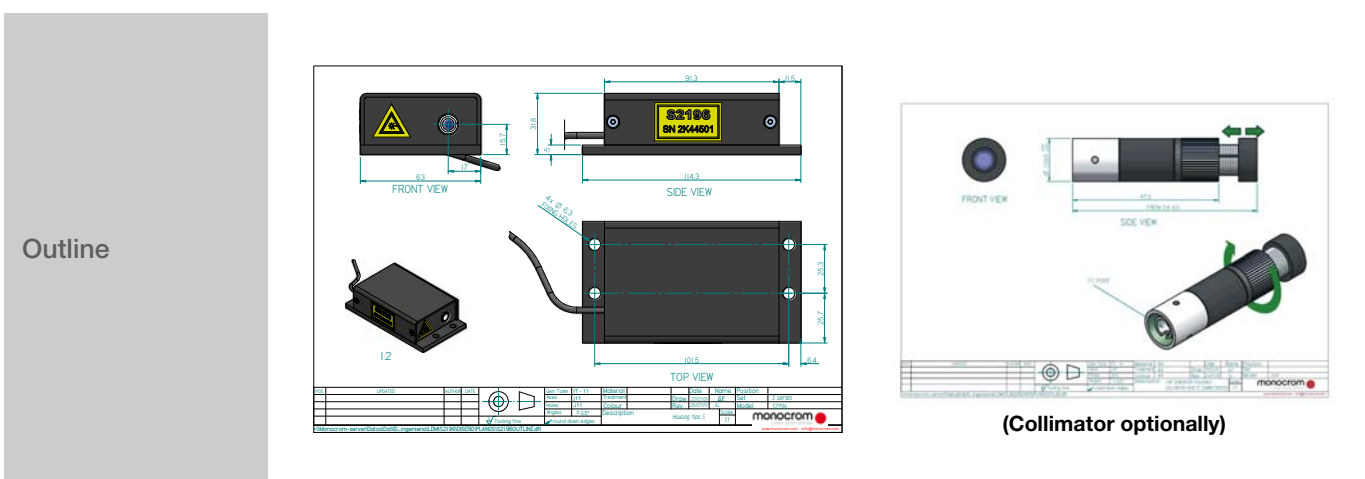
Product Division **LDM Laser Diode Modules**

Product **S - Series**

Description **Thermal Stabilized Laser Diode Modules, Visible range**

- Main Features
- Wavelength and power stabilized.
 - Fibre output.
 - High quality lens and excellent beam performance.
 - Wide range of wavelengths available, typically 530, 635, 650, 670nm. Other wavelengths from 405nm to 1550nm under request.
 - Compact design.
 - Customisation:
 - Fibre pigtailed or detachable
 - Different fibre connectors, SMA or FC
 - Collimators with high quality lenses.

- Some Applications
- Bio-medics
 - Heating
 - Material processing
 - Pumping fibre and Solid-State Lasers
 - Lighting
 - Imaging
 - Automatics & Robotics
 - Guidance
 - Aerospace & Defence
 - Particle sizing



THERMAL-STABILIZED LDM

S-SERIES

ORDERING LDM STANDARD PART NUMBER CODE		C-WW PP H-A LLL
MC: Standard basic LDM	WW: Wavelength	PP: Optical power
H: Housing	A: Clear aperture: 2, 3, 4, 5, 6	LLL: Optics

GENERAL SPECIFICATIONS FOR STANDARD LASER. OTHERS UNDER REQUEST

Model: MCxxxxS	3720	4007	4050	4850	6305	6340	6460	6507	6535	6690	6707
Wavelength (@20°C) [nm] ±5	375	405	405	488	635	635	640	655	655	660	675
Po.max [mW] (with A10 lens)	10	5	25	40	2,5	25	50	5	25	80	5
Op. current typical [mA] at max.Po@25°C	60	60	80		50	100	125	60	100	150	50
Op. temperature [°C]	20 to 30	-10 to 60				-10 to 50		-10 to 70	-10 to 55		-10 to 60
Storage temperature [°C]	-40 to 85										
Thermal stabilisation	Heated. (TEC optional)										
Polarisation ratio	>50:1										
Output power stability	<0.5%RMS										
Reverse voltage protection circuit	Non-protected										
Feeding voltage	5±0,5 V _{DC} Available on 24V DC										
Expected lifetime	>10.000 Hours										
Wires/Connector	200mm Flying leads /Standard D-Sub										
Laser product class	According with the radiant flux and EN-60825 classification, duly identified by labels.										
Housing	S type : Black anodizing Al 63 x 32 x 115mm										

Conditions @ 25°C while not specified. Specifications could change depending on LD used.

OPTICS OPTIONS (to add to the LDM type selected -LLL)

Lens	A10					A15					H18					L05	L10	L20	L50	L100
	Glass aspheric					Glass aspheric					Acrylic aspheric					Glass cylindrical line tracing				
Type	Glass aspheric					Glass aspheric					Acrylic aspheric					Glass cylindrical line tracing				
Clear aperture (A) [mm]	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6	5	6	4	6	4
Relative efficiency [%] (collimated)	20	30	70	80	100	10	15	20	40	60	10	20	30	40	60	64	70	60	70	60
Typ. Divergence [mrd]	0,5					0,3					0,8					0,3	0,4	0,6	0,7	0,8
Fan angle [°]	-					-					-					5	10	20	50	100
Focal length [mm]	10					15					18					50	40	10	8	5
Typ. Focusable range [mm] (depending on model)	70±30 to infinite					250±50 to infinite					150±40 to infinite					>20* to infinite				
Min. focusable diameter @ focus [µm]	70					150					150					120				
Main feature	High transmission					Low divergence					Low price					No line bowing				

Specifications could change depending on LD used.

*Depending on type of collimator

POWER REGULATION / MODULATION MODES	ANALOGUE	DIGITAL
Input signal, V _{mod} , typical	0.5 to 2V (For Power from 0 to PoMax)	TTL (for Power = [0 , Po Max])
Modulation range	CW to 10MHz (upper limit depending on LD used)	
Rise & fall time [ns], typical	<50ns	
Input impedance	560 Ohm	
Resistor to add in parallel for HF	50 Ohm (@ >1MHz)	
Po with 0Vdc input signal	0W	
Po without modulation input (coaxial cable unplugged)	>50% of PoMax	


Specifications could change depending on LD used.

Also fiber output is available on request (see below). Lower power or pre-focusing at factory on request.

FIBER PATCH-CORDS Types (to add at module p.n.)	-004S	-04SP	-005S	-006S	-010S	-050S
Operating wavelength for single mode transmission	633-680	630-780	780-970*	980-1550	1460-1620	Multimode
Polarization maintaining	No	Yes	No	No	No	No
Coupling efficiency (% of Po), typical	30-50%	30-50%	30-50%	30-50%	60-80%	60-80%
Connector repeatability, typical	85%	85%	85%	85%	95%	95%
Mode field diameter [μm]	4.3 @ 633 nm 4.6 @ 680 nm	4.5	5 @ 850 nm *	5.8 @ 980 nm 6.2 @ 1064 nm 10.4 @ 1550 nm	9.5 @ 1550nm	50
Numerical aperture, typical	0,12	0.12	0.12	0.14	0,14	0.22
Cladding [μm]	125±2	125	125±2	125±2	125	150±2
Jacket [μm] / Protec slip [mm]	250 / 3	250 / 3	250	250 / 3	250/3	250 / 3
Min. bend diameter [mm]	25	25	25	25	25	25
Connector type, typical	FC-PC					
Length, typical	2m					
Armored Ø 5mm	Under request					

* Special patch-cord for 830nm (5,6 μm) also available

FOCUSABLE COLLIMATORS HEADS FC CONNECTORIZED. OTHERS UNDER REQUEST							
OPTICS HEADS	Focal Length	Max. CA Effective. Do[x]	Lens type	N.A. max	Eff Typ	Focusing Range, typ. [mm]	Housing [mm] dimensions
-TxA10	10mm @ 670nm	from 2 to 6 mm	Glass aspheric lens	0.33	60 %	>40 to infinite	diam.14x55
-TxA15	15mm @ 670nm	6 mm	Glass aspheric lens	0,30	50 %	>200 to infinite	diam.14x55
-TxG25	25 mm @ 635 nm	6 mm	N/A	N/A	90%	>450 to infinite	diam.14x60
TLxx	Full angle aperture: 5,10,20,50 & 99°		Glass asph.+ cylind.	-	50 %	>50 to infinite	diam.14x60



Ordering Information:



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