



Laser Diode Module

HIGHLIGHTS

- Excellent beam quality TEM00
- Small size $\phi 14\text{mm} \times 42\text{mm}$
- Flexible fibre coupled
- Options
 - collimated or fixed focus length
 - linear or circular polarization

APPLICATIONS

- Industrial metrology
- Machine alignment
- Quality control
- OEM

PROPERTIES

The LDM200 series of laser diode modules are fibre coupled allowing flexible installation and separation of the electrical and optical sections of your design.

High quality optics and precision adjustment provide for excellent beam quality and very long collimation distances of 50m and more. Customized fixed focus distances may also be provided.

The option of choice of polarization is unique and provides many advantages in measurement reproducibility in metrological applications.

The LDM200 has an exit beam diameter of 5mm. Smaller and larger diameters are available on request.

FIELDS OF APPLICATION

These compact, high quality, laser diode modules may be used for industrial metrology and machine alignment applications. The excellent beam quality provides for high reproducibility independent of module rotation. The rugged design is adapted to industrial applications and provides for very high pointing stability.

In OEM applications, the small size of the source allows for simple integration.



ABSOLUTE MAXIMUM RATINGS ($T_{op} = 25^{\circ}\text{C} \pm 2^{\circ}\text{C}$)

Parameter	Symbol	Min.	Max.	Unit
Reverse Voltage laser diode	V_R		2	V
Reverse Voltage monitor diode	V_{mon}		30	V
Operating Temperature	T_{op}	-10	+60	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-40	+70	$^{\circ}\text{C}$
Fibre bending radius	R	25		mm

ORDERING INFORMATION

Full order code: LDM200 www ff p d

	Options	Description	
Wavelength (w)	658nm	Others on request	←
Focal length (f)	1-50m	Please specify	←
Polarization (p)	U	unpolarized	←
	L	linear	
	C	circular	
Driver (d)	B	bare diode pins	←
	U	unmodulated driver	
	M	modulated driver	

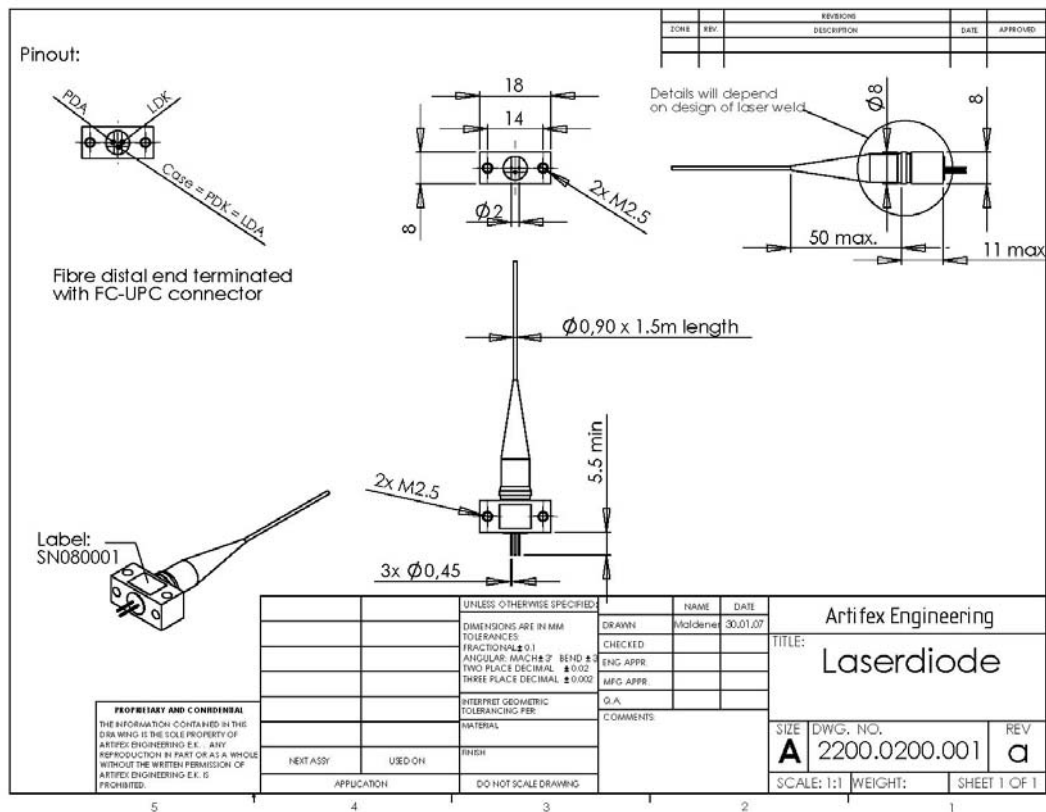
For example, a module with 658nm wavelength, a strongly collimated, circularly polarized output and bare diode pins (no driver), would be ordered as:

LDM20065850CB

OPTICAL AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Fibre Optical Power	P_f	PM Fibre	5			mW
Peak Wavelength ¹	L_p	$P_f=5mW$	650	658	665	nm
Pointing Stability	$T\Delta\theta$				5	$\mu rad/^{\circ}C$
Pointing accuracy	$\Delta\theta$				0.5	$^{\circ}$
Threshold Current	I_{th}	CW		<30	50	mA
Operating Current	I_{op}	$P_f=5mW$		45	55	mA
Operating Voltage	V_{op}	$P_f=5mW$		2.4	2.8	V
Monitor Current	I_{mon}	$P_f=5mW$	0.1	0.3	0.5	mA
Polarization		$P_f=5mW$, linear polarized option $P_f=5mW$, circular polarized option	100:1		1.2:1	

PINNING



¹ Other wavelengths upon request.

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Attention: The LDM200 series of laser diode modules provide a very high brightness output: Laser classification 3R.

As with any laser source: never look directly into the source! Do not look into the source with optical instruments!



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