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Collimated Laser Diode Modules

Features

- Wavelengths: 405, 532, 635, 650, 670, 780, or 808 nm
- Compact Ø8 mm or Ø11 mm Housing
- Powers from 1 mW to 10 mW



The CPS Series Laser Diode Modules are engineered to withstand large temperature variations. All modules maintain an optical-to-mechanical alignment better than 20 mrad. Housings are either Ø8 mm or Ø11 mm and can be integrated into many of Thorlabs' optomechanics using an AD8F or AD11F mounting adapter, respectively.

A 8" (457 mm) or 24" (610 mm) cable is attached to each laser diode module and features a 2.5 mm phono socket for connection to a power supply. The CPS532 has an 18" (457 mm) cable. Each module requires a 5 VDC power supply (not included) such as the LDS1 sold below to operate (see page XXX for details). Alternatively, a 2.5 mm phono plug is included for customers who wish to wire their own power supply to the laser module.

INVISIBLE LASER RADIATION

AVOID EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT
700-800 nm <500 mW
IEC 60825-1 EDITION 1.2 2001-08

LASER RADIATION

AVOID DIRECT EYE EXPOSURE
CLASS 3R LASER PRODUCT
600-700 nm <5 mW
IEC 60825-1 EDITION 1.2 2001-08

ITEM #	CPS405	CPS532	CPS180	CPS182
Wavelength	405 nm	532 nm	635 nm	635 nm
Power	4.5 mW	4.5 mW	1 mW	4.5 mW
Housing Material	Al ^a	Al ^a	Welded Stainless Steel	Al ^a
Housing Dimensions	Ø11 x 40 mm	Ø11 x 72.8 mm	Ø11 x 55 mm	Ø11 x 42 mm
Beam Diameter	3.8 x 1.8 mm ^b	Ø3.5 mm ^c	Ø4.0 mm ^c	4 x 0.6 mm ^b
Axis Deviation (Max)	5 mrad	5 mrad	10 mrad	15 mrad
Beam Divergence (⊥)	0.8 mrad (Max)	0.5 mrad	0.3 mrad	0.6 mrad
Beam Divergence (//)	0.8 mrad (Max)	0.5 mrad	0.3 mrad	1.8 mrad
Operating Temperature	-10 to 40 °C	10 to 40 °C	-10 to 50 °C	-10 to 60 °C
Operating Current	30 mA (Typical)	250 mA (Typical)	60 mA (Max)	55 mA (Typical)
DC Operating Voltage (Typical)	5 VDC	5 VDC	5 VDC	5 VDC
Laser Safety Class	3R	3R	3R	3R

^aAluminum ^bElliptical Beam ^cRound Beam

ITEM #	CPS184	CPS186	CPS192	CPS808
Wavelength	650 nm	670 nm	780 nm	808 nm
Power	4.5 mW	4.5 mW	4.5 mW	10.0 mW
Housing Material	Al ^a	Al ^a	Al ^a	Welded Stainless Steel
Housing Dimensions	Ø8 x 42 mm	Ø8 x 42 mm	Ø8 x 42 mm	Ø11 x 50 mm
Beam Diameter	4.4 x 1.2 mm ^b	4.4 x 1.2 mm ^b	4.4 x 1.7 mm ^b	4.5 x 3.0 mm ^b
Axis Deviation (Max)	15 mrad	15 mrad	15 mrad	20 mrad
Beam Divergence (⊥)	0.6 mrad	0.6 mrad	0.6 mrad	0.8 mrad
Beam Divergence (//)	1.8 mrad	1.8 mrad	1.8 mrad	0.4 mrad
Operating Temperature	-10 to 60 °C	-10 to 60 °C	-10 to 60 °C	-10 to 50 °C
Operating Current	55 mA (Typical)	55 mA (Typical)	45 mA (Typical)	140 mA (Max)
DC Operating Voltage (Typical)	5 VDC	5 VDC	5 VDC	5 VDC
Laser Safety Class	3R	3R	3B	3B

^aAluminum ^bElliptical Beam

ITEM #	\$	£	€	RMB	DESCRIPTION
CPS405	\$ 185.00	£ 133.20	€ 160.95	¥ 1,474.45	405 nm, 4.5 mW Collimated Laser Diode Module
CPS532	\$ 155.00	£ 111.60	€ 134.85	¥ 1,235.35	532 nm, 4.5 mW Collimated Laser Diode Module
CPS180	\$ 128.00	£ 92.16	€ 111.36	¥ 1,020.16	635 nm, 1 mW Collimated Laser Diode Module
CPS182	\$ 116.00	£ 83.52	€ 100.92	¥ 924.52	635 nm, 4.5 mW Collimated Laser Diode Module
CPS184	\$ 108.00	£ 77.76	€ 93.96	¥ 860.76	650 nm, 4.5 mW Collimated Laser Diode Module
CPS186	\$ 106.00	£ 76.32	€ 92.22	¥ 844.82	670 nm, 4.5 mW Collimated Laser Diode Module
CPS192	\$ 106.00	£ 76.32	€ 92.22	¥ 844.82	780 nm, 4.5 mW Collimated Laser Diode Module
CPS808	\$ 278.00	£ 200.16	€ 241.86	¥ 2,215.66	808 nm, 10 mW Collimated Laser Diode Module
LDS1	\$ 85.00	£ 61.20	€ 73.95	¥ 677.45	5 VDC Power Supply