

CPDL-S-F and CPDL-S-FA Series

Compact Diode Lasers for Integration

- Compact design for integration
- Wavelength: 1030, 1064, 1550, 1560 nm (others upon request)
- Pulse width < 120 ps
- Any rep rate 1 kHz up to 100 MHz
- Average power up to 50 mW (incl. fiber amplifier)
- Flexible interface USB or RS 232



Applications

- Seeding
- Metrology and ranging (LiDAR)
- Time-resolved measurement

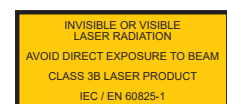
The CPDL-S-F and CPDL-S-FA Series are ideally suited for OEM integration. These laser heads are based on our well-established picosecond pulsed diode laser technologies with optional fiber amplification. The CPDL-S-F and CPDL-S-FA heads do not require a laser driver from the PDL Series for operation. Instead, all parameters can be controlled from a PC via USB or serial connection (RS 232).

CPDL-S-F and CPDL-S-FA heads are based on the same platform, which uses primarily narrow-linewidth near infrared laser diodes, typically emitting at 1030, 1064, or 1550 to 1560 nm. The laser diodes can be mounted either alone (CPDL-F-xxxx) or together with a one stage fiber amplifier to increase its output power (CPDL-FA-xxxx).

Specifications

Optical output	
Fiber receptacle	FC/APC, single mode PM fiber with built in optical isolator
Max reverse launched power	< 50 mW
Mainframe	
Power Input Voltage	12 V (max. 18 V)
Current	max. 1.7 A
External power supply	100 to 240 VAC, 50/60 Hz, max. 100 Watt
Connector Type	LEMO EXG0B302HLN-A
Dimensions (l × w × h)	210 x 118 x 47.4 mm
Net weight laser head	0.8 kg
Total weight incl. power supply, etc	1.6 kg
Power dissipation	max. 20 W
Operating Temperature	15 to 35°C
Trigger Input	
Amplitude	max. +5 V
External frequency	single shot to 100 MHz
Trigger threshold	~ +0.4 V
Impedance	50 Ohms
Connector Type	SMA (female)
Internal trigger	
Internal PLL frequency range	1 kHz - 100 MHz
Status Output	
Amplitude	+5 V for laser ON; 0 V for laser OFF
Impedance	min. 10 kOhms
Connector type	SMA (female)
USB 2.0 UART (Virtual COM-Port)	
Connector type	Mini-USB 2, type B
Baud rate	115200
Data	8 bits
Parity	none
Stop	1 bit
RS232 (option)¹	
Connector type	Sub-D9 female
Baud rate	115200
Data	8 bits
Parity	none
Stop	1 bit

¹ If the RS 232 is chosen then the USB Port is no longer available



Wavelengths

Wavelength (± 3) [nm]	Type (CPDL-S)	Pulse (FWHM) [ps]	Max. repetition rate [MHz]	Average power [mW]
1030	-F-1030	< 90	100	0.7
1030	-FA-1030	< 90	100	30.0
1064	-F-1064	< 110	100	1.4
1064	-FA-1064	< 110	100	30.0
1550	-F-1550	< 90	100	0.4
1550	-FA-1550	< 90	100	30.0
1560	-F-1560	< 90	100	0.4
1560	-FA-1560	< 90	100	30.0



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