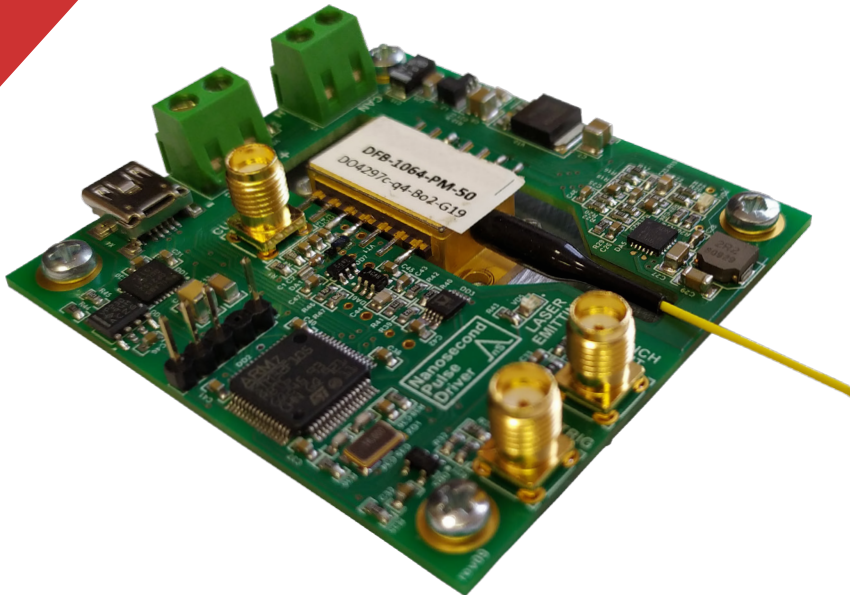


BLD-CW-500-HiPre LASER DRIVER

APPLICATIONS

PUMP LASER



KEY FEATURES

- Special design for 10/14 pin butterfly laser diode
- High precision constant current mode
- Output current up to 500 mA
- High current stability 0.01 mA
- Computer interface USB, CAN, RS-232
- LabVIEW compatible
- Programmable
- Single GUI control for multiple drivers
- On-board TEC controller
- Regulated maximum TEC current
- High precision temperature stability 0.01 °C
- 5 VDC input power
- Integrated heatsink
- Compact size 85 mm x 80 mm x 24 mm

SPECIFICATIONS

PARAMETER	MIN	TYP.	MAX	UNITS
INPUT				
Voltage	4.8	5	5.2	VDC
Current	-	-	2.5	A
OUTPUT				
Current	-	-	500	mA
Current regulation step	-	0.01	-	mA
Current ripple	-	-	0.1	%
Current stability	-	-	0.2	%
Current set accuracy	-	-	1	%
Compliance voltage	1	-	3	V
TEC current	-2	-	+2	A
TEC current setting resolution and accuracy	-	0.1	-	A
TEC voltage	1	-	4	V
TEC temperature set	5	25	45	°C
TEC temperature step	-	0.01	-	°C
TEC temperature accuracy	-	-	0.1	%
TEMPERATURE				
Operating	+10	-	+50	°C
Storage	-20	-	+70	°C
Humidity, non-condensing	-	-	95	%
CONNECTIONS				
Power	2-pin terminal block (1734035-1 TE connectivity)			
Interface connectors	USB: Mini-USB, Type B (1734035-1 TE connectivity) RS232: DB-9 (5747844-4 TE connectivity)			
MECHANICAL				
Size	85 mm x 80 mm x 24 mm			
Weight	< 160 g			

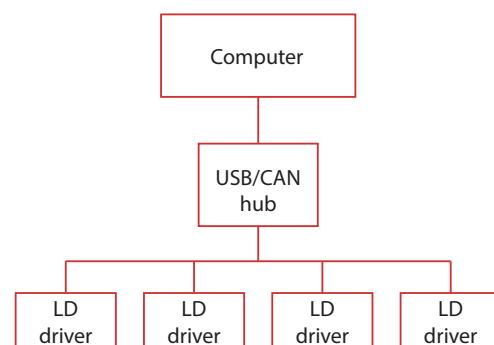
DESCRIPTION

The BLD-CW-500-HiPre is a constant current laser diode driver for powering 10/14-pin butterfly laser diode modules for applications, which require high precision low ripple constant current regulation.

The driver circuitry operates from a single 5 VDC power source. The driver supplies a bidirectional proportional-integral-derivative (PID) thermoelectric cooler controller (TEC) with current capability of 2 A and voltage capability of 4 V. Maximum TEC current is regulated by user.

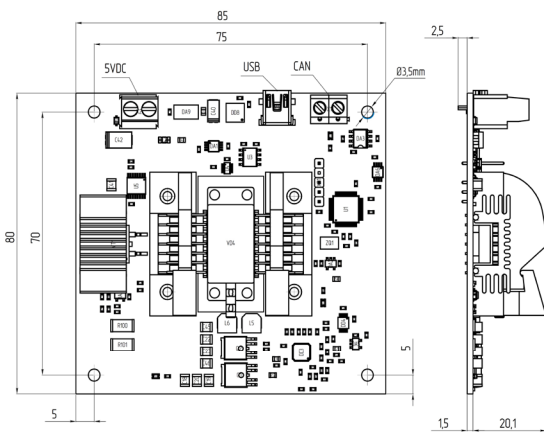
The main parameters of BLD-CW-500-HiPre (output current, temperature set, maximum TEC current, monitor photodiode signal) are controlled by computer interface. The GUI can control multiple drivers connected by CAN/USB hub.

Driver has landing pads for soldering a butterfly laser diode directly into driver board and large heat sink for stable heat dissipation.

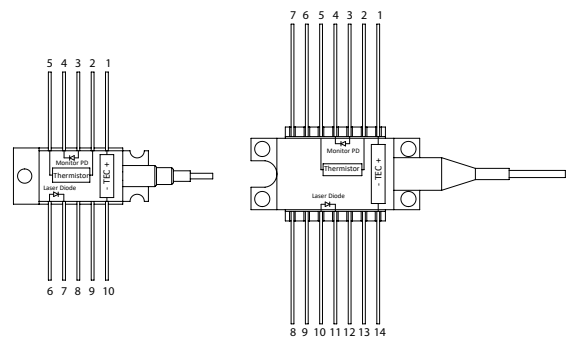


PERFORMANCE, DIMENSIONS

DIMENSIONS AND CONNECTORS



PIN	Function
1	TEC (+)
2	Thermistor
3	Monitor anode (-)
4	Monitor cathode (+)
5	Thermistor
6	LD (+)
7	LD (-)
8	N/C
9	Case ground
10	TEC (-)



COMPATIBLE LASER PINOUTS

PIN	Function
1	TEC (+)
2	Thermistor
3	N/C
4	N/C
5	Thermistor
6	N/C
7	N/C
8	N/C
9	N/C
10	LD anode (+)
11	LD cathode (-)
12	N/C
13	Case ground
14	TEC (-)

ORDERING INFORMATION

BLD - CW - 500 - HiPre - Interface:
 RS: RS 232 interface
 USB: Mini USB Type B interface
 CAN: CAN interface

Example: BLD - CW - 500 - HiPre - USB

Get in touch with us!

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Find out more about us at
www.ampliconyx.com

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