

AMP-BLD-6560-PS SHORT PULSE LASER DRIVER

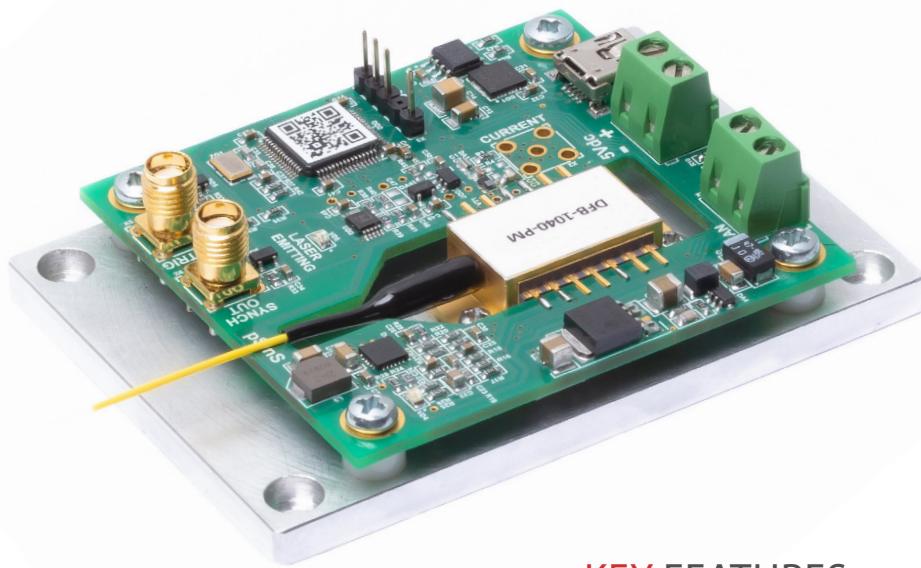
APPLICATIONS

PICOSECOND PULSE GENERATION

LIDAR

SENSING

SEED LASERS



KEY FEATURES

- Output current up to 2 A
- Compliance voltage up to 3 V
- Extra short 50 ps pulse width
- Repetition rate up to 10 MHz
- Computer interface
- External trigger option
- On-board TEC controller
- On-board pulse generator
- LabVIEW - compatible
- 5 VDC input power
- RS232/USB/CAN interfaces
- Integrated heatsink
- Compact size 65 mm x 60 mm x 14 mm

SPECIFICATIONS

PARAMETER	MIN	TYP	MAX	UNITS
INPUT				
Voltage	4.8	5	5.2	VDC
Current	-	-	0.6	A
External trigger (50 Ω impedance)	3.3	-	5	VDC
OUTPUT				
Current	-	-	2000	mA
Compliance voltage	1	-	3	V
Pulse width*	40	50	150	ps
Repetition rate	0.001	-	10	MHz
Rise time*	40	50	60	ps
Fall time*	40	50	100	ps
TEC current	-1.5	-	1.5	A
TEC set temperature	15	25	45	°C
TEC voltage	1	-	4	V
Trigger	2	3	3.3	V
TEMPERATURE				
Operating	+10	-	+50	°C
Storage	-20	-	+70	°C
Humidity, non-condensing	-	-	95	%
CONTROL INTERFACES				
Interface options	CAN, USB, RS232			
CONNECTORS				
Power	2-pin terminal block			
External trigger	SMA Jack (73251 - 1350 Molex)			
Interface connectors	USB: Mini-USB, Type B (1734035-1 TE connectivity) RS232: D-SUB9 CAN: 2-pin terminal block			
MECHANICAL				
Size	65 mm x 60 mm x 14 mm			
Weight	< 160 g			

* Output performance depends upon laser diode characteristics. Performance cannot be guaranteed for all laser types. See optical output waveforms.

DESCRIPTION

The AMP-BLD-6560-PS is a compact short pulse seed laser diode driver for powering 14-pin butterfly laser diode modules for applications which require pulse width about 50 ps. The pulse repetition frequency can be varied from 1 kHz to 10 MHz. The driver circuitry operates from a single 5 VDC power source. All other needed voltages are generated on the board by high efficiency switching power supplies. The driver supplies a bidirectional proportional-integral-derivative (PID) thermoelectric cooler controller (TEC) with current capability of 1.5 A and voltage capability of 4 V.

The main parameters of AMP-BLD-6560-PS (power, repetition frequency, temperature set point) are controlled by computer interface.

The AMP-BLD-6560-PS has an external TTL-compatible input for repetition rate control from single shot up to 10 MHz.

The AMP-BLD-6560-PS have an external output for synchronization with each optical output.

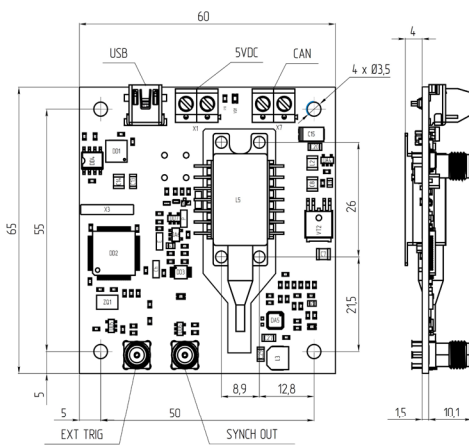
PCB is attached to a metal heatsink for good thermal management (not shown in picture).

AMPLICON VV
AMPLICON TA

NEW FRONTIER IN ULTRAFAST LASER PERFORMANCE.

PERFORMANCE, DIMENSIONS

DIMENSIONS AND CONNECTORS

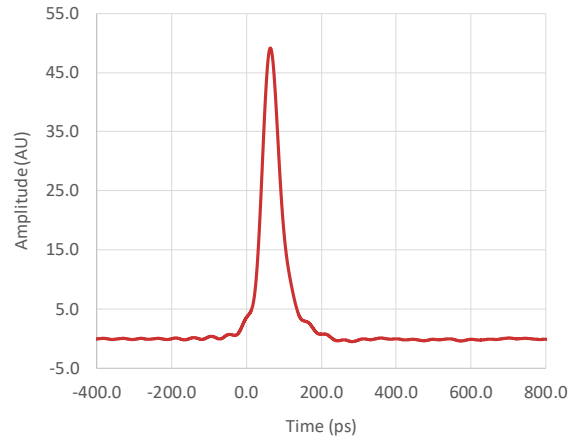


COMPATIBLE LASER PINOUT

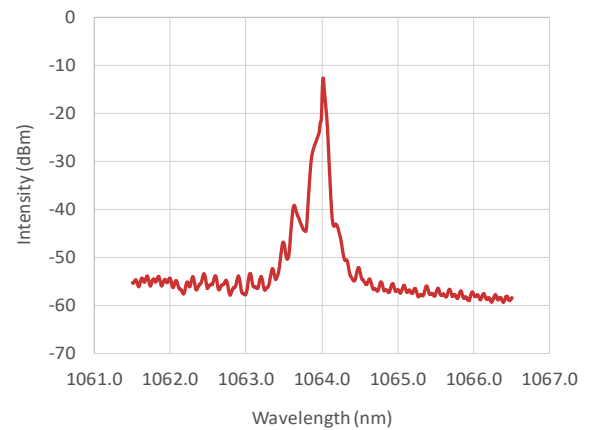
PIN	Function
1	TEC +
2	Thermistor
3	N/C
4	N/C
5	Thermistor
6	N/C
7	N/C
8	N/C
9	N/C
10	LD anode
11	LD cathode
12	N/C
13	Case ground
14	TEC -

OPTICAL OUTPUT WAVEFORMS

Test laser diode Innolume DFB-1064-PM-50-PM



Test laser diode Innolume DFB-1064-PM-50-PM



ORDERING INFORMATION

AMP - BLD - 6560 - PS - — Interface:
 RS: RS 232 interface
 USB: Mini USB Type B interface
 CAN: CAN interface

Example: AMP - BLD - 6560 - PS - USB

Get in touch with us!

sales@ampliconyx.com
 www.ampliconyx.com

Find out more about us at
www.ampliconyx.com

AMPLICONYX
NEW FRONTIER IN ULTRAFAST LASER PERFORMANCE.