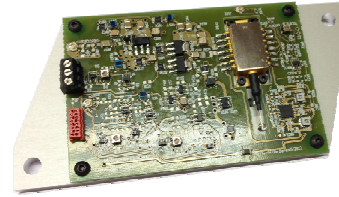


Analog pulse laser diode driver Pulse Driver V2.1

Model no.: PSLD-A



Description

PulseDriverV2.1 is a board level analog pulse laser diode driver, ideal for driving high power 14 pin butterfly packaged laser diode modules with TEC. The driver is implemented as an AC coupled high gain current amplifier with 50ohm terminated input. The board includes TEC controller and a bias-T with a constant current driver for applying bias current to the laser diode.

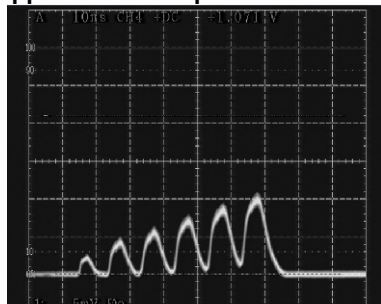
Specifications

Parameter	Specification	Unit
Pulse width	2 – 500	ns
Pulse repetition frequency	Single-shot to 500	kHz
Duty cycle	0 – 5	%
Pulse current	0 – 1.5	A
Bias current	0 – 100	mA
TEC current	-1.2 – 1.2	A

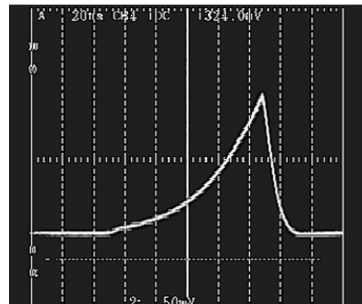
Compatible 14-pin butterfly packaged pin out (*laser not included*)

Pin	Description	Pin	Description
1	Peltier cooler (+)	8	NC
2	Thermistor	9	NC
3	Monitor anode	10	Laser anode
4	Monitor cathode	11	Laser cathode
5	Thermistor , connected to GND on board	12	NC
6	NC	13	GND
7	NC	14	Peltier cooler (-)

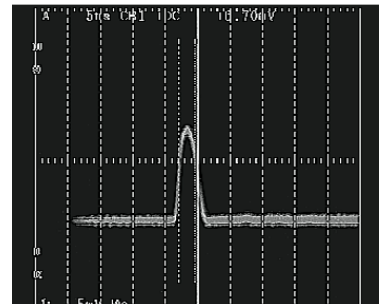
Application examples



Predistorted burst of 5ns pulses



Predistorted 100ns pulse



2 ns pulse

Connectors

J1 molex 39357-0003

Pin	Description
1	LD supply 5 to 12V
2	Common GND
3	5V control supply

J2 AMP 7-215079-8, mates with 7-215083-8

Pin	Description	Pin	Description
1	5V output	5	GND
2	GND	6	Bias setpoint, pulled down on board
3	GND	7	GND
4	Low pass filtered pulse input, connected to J3	8	Bias setpoint source select, 0: On board trimmer R106, CW increase current. 1(>2.5V): pin 6

J3 Hirose Electric Co Ltd U.FL-R-SMT(10), Mates with HIROSE U.FL TO SMA(F) 200MM, Taoglas Limited CAB.718

Pin	Description
1	Low pass filtered pulse input, 20 to 500ns 50ohm input. 0 to 1V
2	GND

J100 Hirose Electric Co Ltd U.FL-R-SMT(10), Mates with HIROSE U.FL TO SMA(F) 200MM, Taoglas Limited CAB.718; 50ohm input

Pin	Description
1	Pulse input, 2 to 500ns, 50ohm input. 0 to 1V
2	GND

J101 Hirose Electric Co Ltd U.FL-R-SMT(10), Mates with HIROSE U.FL TO SMA(F) 200MM, Taoglas Limited CAB.718

Pin	Description
1	Back facet Monitor output, 5V reverse biased, 47ohm terminated
2	GND