



DLD-88B PULSED LASER DIODE DRIVER

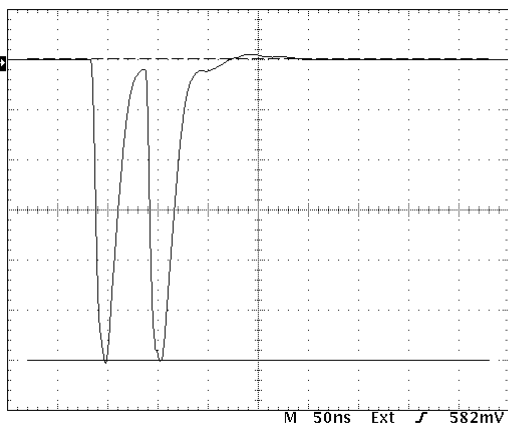
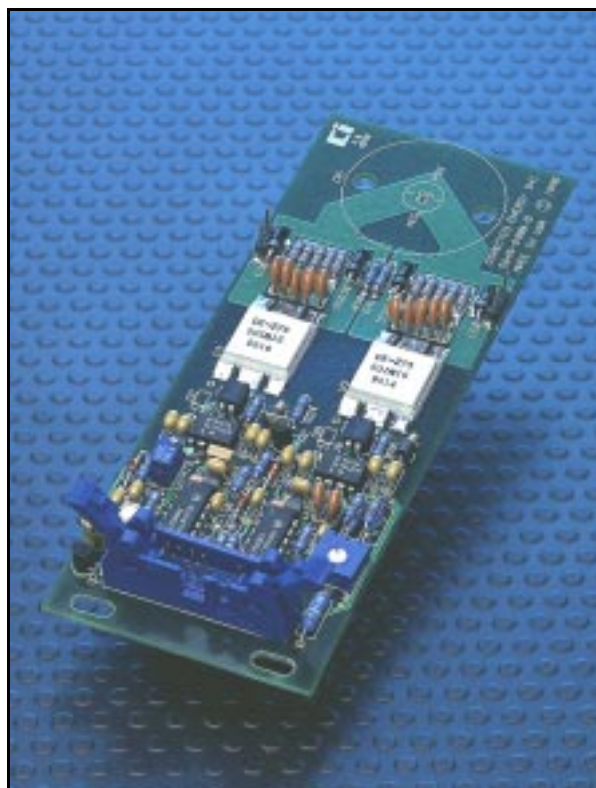
- Pulse Doublet Frequency Up to 20MHz
- Output Current Up To 120A
- Pulse Width 20ns
- Repetition Rates Up To 500Hz

The DLD-88B is a high speed, high current pulsed laser diode driver designed to generate two output pulses (a doublet) when triggered. The delay between the first and second pulses can be varied through an on-board potentiometer. This feature can be disabled through the enable/disable line, allowing the DLD-88B to generate a single pulse when triggered.

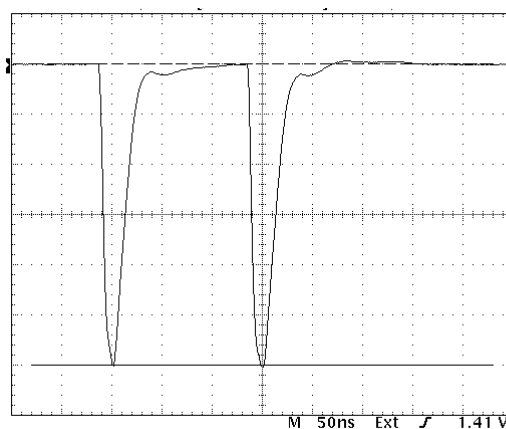
The double-pulse feature of the DLD-88B facilitates testing, calibration and design of range finders, FLIRs, and other instruments which require testing and characterization of second-target rejection, and other high burst frequency applications.

The DLD-88B is available in two models offering 80A and 120A maximum output current. Both models have a nominal pulse width of 20ns, and a maximum frequency of 500Hz. (Contact the factory for other pulse width and frequency options.) The doublet spacing is variable from 50ns to 500ns between pulses, providing a burst frequency of 2MHz to 20MHz.

The driver incorporates laser diode mounting pads on the circuit board that are designed to accommodate CD-9MM, CD-5.6MM and TO-18 diode packages.



Pulse Doublet, 120 Amp Current, Minimum Delay Between Pulses



Pulse Doublet, 120 Amp Current, ~150ns Delay Between Pulses



The Pulse Of The Future

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SPECIFICATIONS		
PARAMETER	DLD-88B-80A	DLD-88B-120A
Peak Output Current (First Pulse)	≥80A, controlled by input high voltage amplitude	≥120A, controlled by input high voltage amplitude
Peak Output Current (Second Pulse)	≥90% of the amplitude of the first pulse, adjusted by PCB-mounted potentiometer	
Pulse Width (FWHM)	20ns ±5ns, fixed	
Delay Between End of First Pulse And Start of Second Pulse	~50ns to 500ns, controlled by PCB-mounted potentiometer	
PRF (Pulse Recurrence Frequency), CW	Single Shot to 500Hz, controlled by input trigger frequency	
Gate (Trigger) In	+5V/50Ω, 50-100ns pulse width	
Support Power	+15V at 20mA	
DC HV Input	490V MAX	
MECHANICAL		
Length	6.00in.	
Width	2.25in.	
<i>ALL SPECIFICATIONS MEASURED INTO A SHORTED OUTPUT. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.</i>		

Technical Description

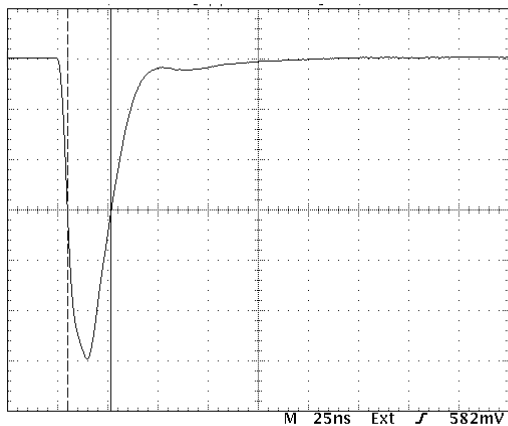
The DLD-88B is comprised of two charge-line pulsers, driving a common output point through microstripline interconnections.

On-board potentiometers control the delay time between the first and second pulses, and allow the amplitude of each pulse to be adjusted in relationship to the other, within a ±10% window of variation. The pulse enable/disable signal allows the user to dynamically select whether the driver

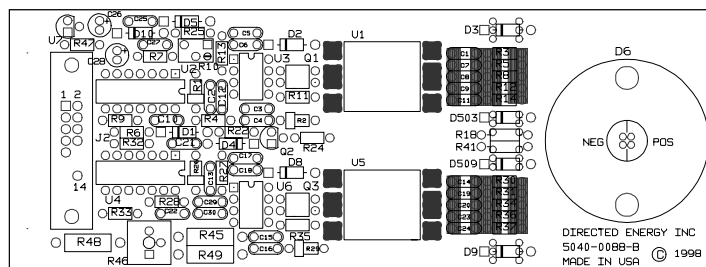
generates a single pulse, or a pulse doublet, when triggered.

The driver is an open-frame module. The output current is controlled by the input DC power supply voltage. The pulse frequency is controlled by the trigger signal.

The driver requires an external DC power supply (+490V maximum), +15VDC support power, a gate signal (+5V/50Ω), and a pulse enable/disable signal (TTL into 50Ω).



Single Pulse Output, 120 Amp Current



DLD-88B Circuit Board Layout

DEI supplies solutions for the generation, delivery and measurement of high power, high fidelity electrical pulses. Applications include lasers, test and measurement, mass spectroscopy, radar and acoustics.

Please call, FAX or email for applications assistance or information on other DEI products.



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