SHORT-PULSE LASER DIODE DRIVER WITH USER DESIGNED PULSE SHAPES
500 picosecond to 8 μs pulse width range; full control of pulse shape by on-board AWG

CCS-PULSE-SHAPER

User Designed Pulse Shapes; On-Board Arbitrary Waveform Generator (AWG) for User Customizable Pulse Shapes

Pulse Width Range: 500 Picoseconds to 8 μsec

0 to 1.6 Amp Pulsed Output Current, 0 to 20 MHz Repetition Rate

Includes Laser Diode “Gain-Switch Peak” Suppression Mode

Integrated Pre-Configured Butterfly Mounting Socket and Integrated TEC Controller

Built-in Pulse AWG, Internal or External Triggering

WORLD LEADING PRODUCTS FOR LASER SCIENTISTS AND ENGINEERS

www.LaserLabSource.com
phone: 406.219.1472
SPECIFICATIONS

INTERNALLY GENERATED PULSES

PULSED CURRENT AND PULSE SHAPING SPECIFICATIONS

- Peak Current Range: 0 Amps - 1.6 Amps
- User Adjustable Pulse Width Range: 500 psec - 8 μsec
- Repetition Rate Range: 0 ~ 20 MHz
- Pulse Shaping Timing Resolution (max): 500 psec
- Pulse Shaping Current Resolution: 30 μA
- Laser Diode Compliance Voltage Maximum: 4.8 Volts
- Current Set-Point Resolution: 16 bit ADC

EXTERNALLY GENERATED PULSES

AOM / EOM PULSED CURRENT AND PULSE SHAPING SPECIFICATIONS

- External Pulse Peak Acceptable Current Range: 0 ~ 3.5 Amps
- AOM / EOM Acceptable Pulse Width Range: 1 nsec - CW
- AOM / EOM Pulse Shaping Timing Resolution: < 500 psec
- Output Voltage (Factory Configured): 1 Volt (50 Ohm) / 5 V (High-Z)
- External Pulse Timing Resolution (Delay/Pulse-Width): < 1 nsec

ELECTRICAL SYNCHRONIZATION

PULSE DELAY GENERATOR OUTPUTS

- Number of Outputs: 3
- Synchronization Signals Duration: 0 ~ 10^4 nsec
- Synchronization Signals Resolution: 1 nsec
- Output Voltage: 0 ~ 3.3 Volts (50 Ohm)

TEMPERATURE CONTROLLER & BUTTERFLY MOUNT

- TEC Current Range: +/- 1.5 Amps
- TEC Voltage Range: 3.8 Volts
- TEC Controller Compatible with NTC Thermistor Sensors
- Zero Insertion Force Mounting Socket for 14-Pin Butterfly Packages
- Standard Product Configured to Type 1 Package Pin Configuration (Type 2 Available on Request)

USER INTERFACE

- USB with Control Software GUI
- DLL Library for C programming and Hexadecimal Protocol
- Analog (0-3.3V) Remote Signal Peak Power Adjustment
- UART

POWER SUPPLY AND DIMENSIONS

- Power Supply Included
- 162 mm (L) x 92 mm (W) x 20 mm (H)
USER DESIGNED PULSE SHAPES

example of a user designed pulse shape in a MOPA fiber laser seeder application

User designed shapes to customize pulse shapes for your application

GAIN SWITCH PEAK SUPPRESSION FUNCTION

1.5 nanosecond pulse with typical gain switch peak on leading edge of the pulse

Gain Switch Peak Suppression Function Activated

1.5 nanosecond pulse after activating the "gain-switch peak suppression" function
User has full control over the pulse shape through the control software and GUI

Complete Control of the Pulse Shape through GUI Software or a .CSV Import File

80 PICOSECOND GAIN-SWITCH PULSE
*gain-switch performance is highly dependent on the laser diode

Isolated Gain-Switch Peak from a DFB Laser Diode
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<td>Power Connector (24V/4A) – included</td>
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PRODUCT SALES AND SERVICE:
Orders for this product are fulfilled by Laser Lab Source in North America and select international regions. It is manufactured by Aerodiode, Talence, France.

PRODUCT WARRANTY:
This product is sold with a full one year warranty. It is warranted to be free from defects in material and/or workmanship for a period of one year from the date of shipment.

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