**CCS-PULSE-TX**

User Set Pulse Widths from 1 Nanosecond to CW

0 to 1.5 Amps Output Current
(3.5 Amps Available, refer to options)

1 Hz to 4 MHz Repetition Rate
(250 MHz Available, refer to options)

Integrated Pre-Configured Butterfly Mounting Socket

Built-In Pulse Generator and Remote Triggering

USB Interface, Includes Programming Tools Software Suite, DLL Library and GUI

Integrated TEC Temperature Controller
SPECIFICATIONS

PULSED OUTPUT CURRENT & VOLTAGE SPECIFICATIONS
Output Current Range: 0 Amps ~ 1.50 Amps
Adjustable Pulse Width Range; Internal Trigger: 1 nsec - 500 nsec
Adjustable Pulse Width Range; 1 nsec - CW
Internal Pulse Generator Adjustment Precision: 10 psec
Internal Pulse Generator Repetition Rate Range: 1 Hz to 4 MHz
Output Current CW (continuous) Mode: 0 Amps ~ 800 mA
Output Voltage Maximum: 4.8 Volts
Noise and Ripple (rms 100Hz to 10 MHz): < 0.03%
Set-point Resolution @ 500 mA: 0.1mA
Set-point Resolution @ 1000 mA: 0.3mA

TEMPERATURE CONTROLLER & BUTTERFLY MOUNTING SOCKET
TEC Current (max): 1.5 Amps
TEC Voltage (max): 3.8 Volts
Zero Insertion Force Mounting Socket for 14-Pin Butterfly
TEC Controller Compatible with NTC Thermistors: kΩ - 100 kΩ

LASER DIODE PROTECTION
User set Over-Current limit shut down
Over-Temperature limit shut down
Safety interlock shut down
Soft-Start ramp to current set-point (CW mode)
Transient and ESD surge protection
Fast error detection and shut down feedback
SPECIFICATIONS

USER INTERFACE, POWER INPUT & DIMENSIONS (ALL MODELS)
PC Interface USB with Control Software GUI
DLL Library for C programming and Hexadecimal Protocol are available at no charge
Control by Analog Voltage Signal (0-3.3V) Remote Signal Peak Power Adjustment
(Included with Product) Input Power Supply 12VDC (220V/110V adapter included)
146mm (W) x 130mm (L) x 37mm(H)

PULSE GENERATION MECHANISMS (3 MODES)
1. Internal pulse generator, on-board pulse generator
2. External trigger to internal pulse generator, user supplied LVTTL signal triggers (on the rising edge)
   the Internal generator ~ pulse parameters are set in the internal pulse generator and the pulse is
   delivered from the internal generator
3. External Trigger Pulse Generator ~ pulse duration is the same as the external trigger
   pulse duration

ENHANCED PERFORMANCE MODEL /HPP - HIGH PULSE PERFORMANCE (HPP) SPECIFICATIONS
ENHANCED PERFORMANCE MODEL CCS-PULSE-TX/HPP
Internal Pulse Generator Repetition Rate Range, 1 Hz to 250 MHz
Output Current Pulsed Mode, 0 Amps ~ 3.50 Amps
Jitter <8 psec
CCS-PULSE-TX/HPP Price: $8,995

PIN CONFIGURATION MODEL SELECTION
CCS-PULSE-T1 (type 1 pin configuration)
CCS-PULSE-T2 (type 2 pin configuration)
CCS-PULSE-T2B (type 2 with internal bias-t pin configuration)
Low Impedance Butterfly Mounting Socket

Pulse Sync Signal Output

Monitor PD Output

USB

External Trigger Signal Input (TTL/LVTTTL)

Amplitude Adjustment

0~5V Analog Power Adjustment Input

Pulsed Laser Diode Driver with Integrated TEC Controller & Butterfly Mounting Socket

3 NANOSECOND PULSE EXAMPLE
from DFB laser diode; II-VI Laser Enterprise model CMDFB1064A at full peak power

100 NANOSECOND PULSE EXAMPLE
from FBG stabilized laser diode; 3SP model 1064CHP at full peak power

Pulse samples from butterfly packaged laser diodes
Pre-Configured for specific laser diode pin configuration

GRAPHICAL USER INTERFACE

Simple User Interface:
- Peak Pulse Current
- Maximum Average Current
- Pulse Width
- Pulse Frequency
- Pulse Current Source (Ext or Int)
- Pulse Trigger Source (Ext or Int)
- Offset Current
- Laser Diode Temperature
- Control Mode: CW or Pulsed
- Laser Diode Output ON/OFF

USB Interface, Includes Programming Tools Software Suite, DLL Library and GUI
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.

Laser Lab Source, a division of Research Lab Source Inc.
670 S. Ferguson St., Suite 3
Bozeman, MT 59718 USA

Phone: 406-219-1472

www.LaserLabSource.com

Aerodiode
Rue François Mitterrand
Institut d’Optique d’Aquitaine
33400 Talence FRANCE

www.Aerodiode.com