520nm Laser diodes & Turn-key solutions

CCS-HPP
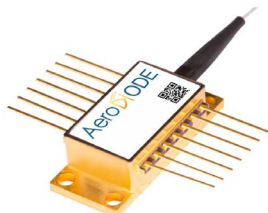High Pulse Performance

AeroDIODE

520nm laser diode

Choose your own fiber-coupled laser diode + turn-key Driver solution

Standard singlemode laser diodes are offered as stock items or associated with a CW or pulsed open-frame or turn-key laser diode driver.
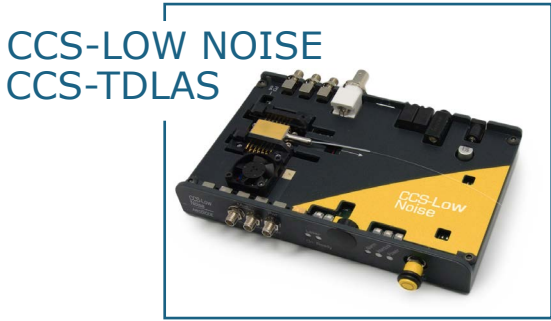
1st Choose your laser diode:

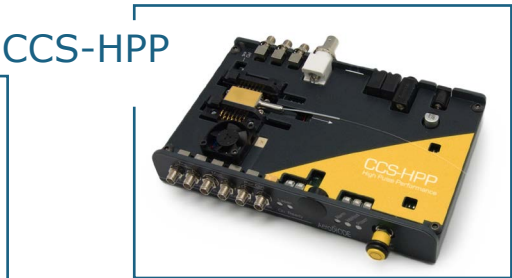| Diode model	Power (CW)	Power (pulse)	Nominal Levels (typ.)	Technology	Wavelength (nm)	Fiber core / NA (OPTION 1: PM)	Emisison Bandwidth (typ)	Package
1	25mW	30mW	140mA	Butterfly singlemode Fabry-Pérot	520 ± 10nm	2.5µ / 0.130 (3.0µ / 0.120)	~1nm	14 pin Butterfly type 1
2	50mW	60mW	240mA					

2nd Choose your Driver performance:

LASER DRIVER VERSION:

	520nm Laser Diode version	CW Driver: «TDLAS» is the open driver and TDLAS-I is the integrated version	CW Driver with Ultra-low noise performances: «CCS-LOW NOISE» is the open driver and CCSI-LOW NOISE is the integrated version	Pulse & CW Driver: «CCS-HPP» is the open driver and CCSI-HPP is the integrated version	User design pulse shape Driver: «SHAPER» is the open driver and «Shaper-I» is the integrated version (from 0.5ns to 8µs)
Output Power - CW / Pulse (Typical values)	Butterfly singlemode 25mW 50mW	25mW / No		25mW / 30mW	No / 30mW
		50mW / No		50mW / 60mW	No / 60mW
Laser diode T°	Any	0-90 °C / <1 mK			15 - 50 °C / <10 mK
CW light modulation bandwidth		300Hz	100Hz	300kHz	No
Current modulation of CW light		Internal : sin/sqr/triang External : 0-20mA/V (adjustable);			No
BFM (Back Facet Monitor) / BFM driver with variable gain		Yes/Yes			Yes/No
Pulse duration (Ext. trigger)		CW only		0.5ns - 8µs	0.5ns - 8µs
Pulse duration (Internal pulse generator)					
Typ rise/fall time ; Min optical pulse duration (14 pin DIL package diodes)				3(ns/A) ; 1.5ns	3(ns/A) ; 1.5ns
Internal rep rate adjustment				1Hz - 250MHz	1Hz - 20MHz
Temporal Jitter				< 25ps	< 2 ns (<10 ps with 10 MHz reference clock)
Interface/GUI/libraries		USB - Windows 10/11 - DLLs - Hexa/Linux - Labview - Python			

3rd Choose your product form factor: OPEN-FRAME or INTEGRATED
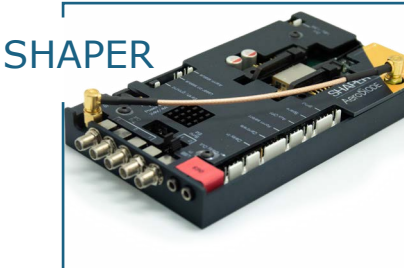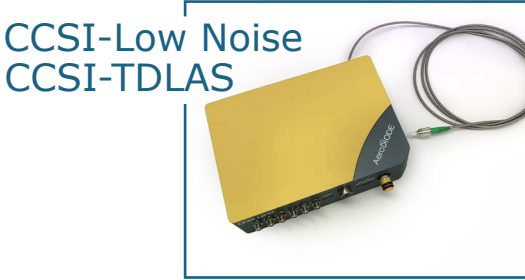
OPEN-FRAME VERSIONS:

CCS-LOW NOISE / CCS-TDLAS
➢ Open-frame driver for CCS-Low Noise and CCS-TDLAS electronics Boards (CW mode)

CCS-HPP
➢ Open-frame driver for «CCS-HPP» electronic Board for single mode diodes driven in both CW and pulse mode

SHAPER
➢ «SHAPER» Open-frame pulsed driver with «user design pulse shape»

INTEGRATED VERSIONS:

CCSI-Low Noise / CCSI-TDLAS
➢ Integrated version for CCS-Low noise and CCS-TDLAS electronics Boards
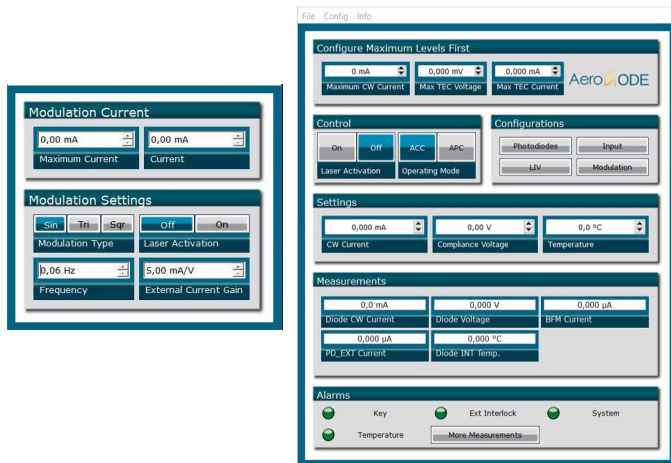
CCSI-HPP
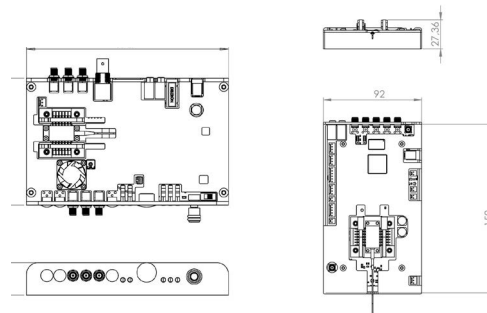➢ Integrated version for CCS-HPP pulse and CW electronics Boards

SHAPER-I
➢ «SHAPER-I» Integrated driver for Shaper pulsed driver with «user-design pulse shape»

AeroDIODE

Technical Specifications

GUI (examples):

Mechanical (examples):

CW & Pulsed   SHAPER

OPTIONS (see all prices on the website page):

* PM fiber output

* Optical collimator (3mm)

➤ Example of 10 ns and 100 ns pulse shapes obtained with CCS-HPP driver

➤ All AeroDIODE products can be connected together (daisy chain) to a unique GUI interface which consolidates all modules functions

Classification:

Name	520LD:
Diode type	1: 25mW butterfly singlemode 2: 50mW butterfly singlemode
Driver Electronics :	0: No driver - laser diode alone TDLAS: Low noise driver with high modulation bandwidth LN: Ultra-Low noise driver HPP: Pulsed and CW Driver SHAPER: User design temporal pulse shape
Form Factor	0: No driver - laser diode alone 1: Open-frame driver version 2: Turn-Key Integrated driver version

Ordering information:

520LD - [_] - [_] - [_] - Options

Diode type
1
2

Driver type
0
TDLAS
LN
HPP
SHAPER

Form Factor
0
1
2

AeroDIODE

⚠ DANGER LASER 4
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION

Product Line Manager: sales.aerodiode@aerodiode.com
+33 (0)6 27 69 41 52
www.aerodiode.com