

450nm Laser diode & Turn-key solutions



Aero  DiODE

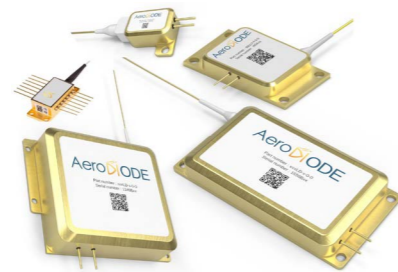
450nm laser diode

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

Standard singlemode or multimode 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 type	Power (CW)	Power (Pulse)	Nominal Levels (typ.)	Technology	Wavelength (nm)	Fiber	Emission BW	Package (mm)
1	50mW	60mW	140mA - 6V	Butterfly singlemode Fabry-Pérot	450 ±10nm	Singlemode 3µm NA=0.12	few nm	14 pin Butterfly type 1
2	7W	7W	2A - 14V	Multimode multi-emitters		Multimode 105µm NA=0.22	~4nm	37*34*13.25
3	20W	20W	3A - 27V				~3nm	55.15*36*15.15
4	30W	30W	2.3A - 53.5V				~4nm	123.5*50*22

3rd

Choose your product form factor : OPEN-FRAME or TURN-KEY

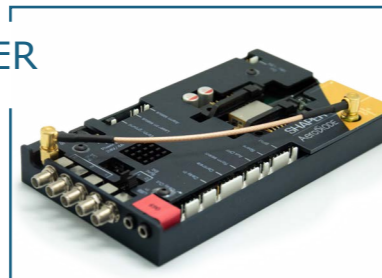
OPEN-FRAME VERSIONS:

CCS-HP2
CCS-HPP



➤ Open-frame driver for CW and HP electronics Boards for single mode diodes

SHAPER



➤ Open-frame driver for «Shaper» electronic Board and single mode diodes (user design pulse shape driver)

CCM



➤ «CCM» Open-frame driver for Multimode diodes

2nd

Choose your Driver performance:

LASER DRIVER VERSION :

	450nm Laser Diode version	CW Driver (for singlemode diodes : «CCS» is the open driver and CCSI is the integrated version)	Pulse & CW Driver (from 1 ns to CW: «CCS» is the open driver and CCSI is the integrated version)	User design pulse shape Driver («SHAPER» open driver from 0.5 ns to 8 µs)	Multimode diode Driver (High power driver for 10 to 150 W diodes : CCM is the open version, CCMi is the integrated version)
Output Power - CW / Pulse (Typical values)	1- Single mode	50mW / No	50mW / 60mW	No / 60mW	Not compatible
	2-Multimode 7W 20W 30W	Not compatible			7W / 7W 20W / 20W 30W / 30W Not compatible (diode only, no driver available for 30W module)
User design Pulse shape		No	No (On-off only)	Yes	No
Laser diode T°		15 - 50 °C			15 - 40 °C
Pulse duration (Ext trigger)			0.5ns - CW	0.5ns - 8µs	10µs - CW
Pulse duration (Internal pulse generator)			0.5ns - 500ns		No
Typ rise/fall time ; Min Pulse duration	Any	CW only	3(ns/A) ; 1.5ns	< 1ns/A ; 1.5ns	few µsec
Internal rep rate adjustment			1Hz - 4MHZ (250MHZ optional)	1Hz - 20MHz	No
Temporal Jitter			< 25ps	< 2ns	
Adj. CW offset (pulse regime)		Yes		No	Yes (external mode)
Interface/GUI/libraries		USB - Windows 10/11 - DLLs - Hexa/Linux - Labview - Python			

TURN-KEY VERSIONS:

CCSI-HP2
CCSI-HPP



➤ Integrated version for CW and HP electronics Boards

SHAPER-I



➤ Integrated version for Shaper electronics Board

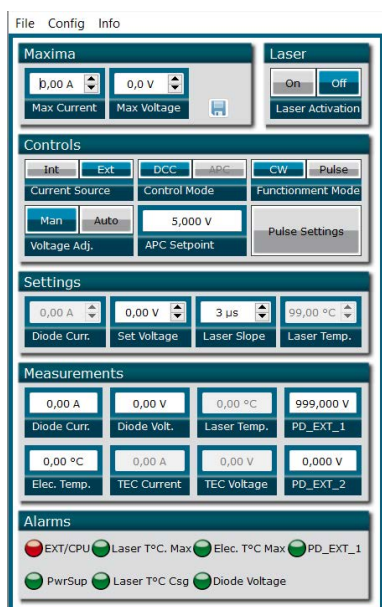
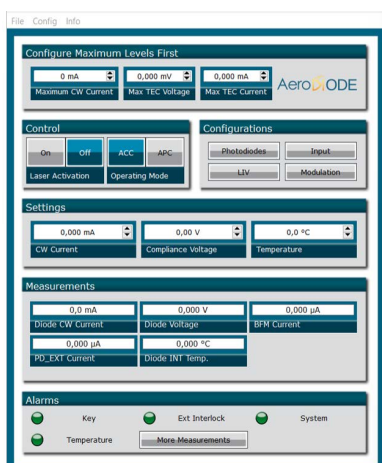
CCMI



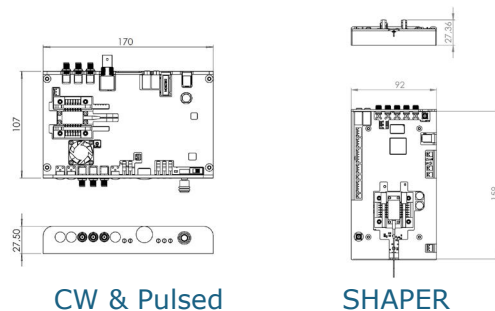
➤ «CCMI» Turn-key driver for Multimode diodes

Technical Specifications

GUI (examples):

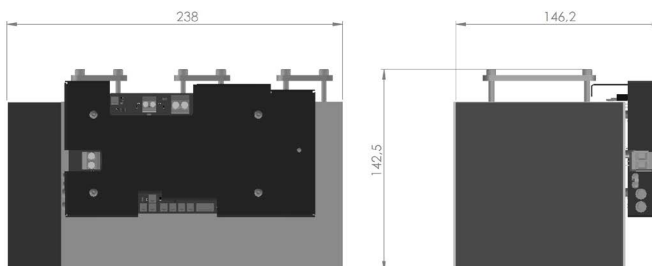


Mechanical (examples):

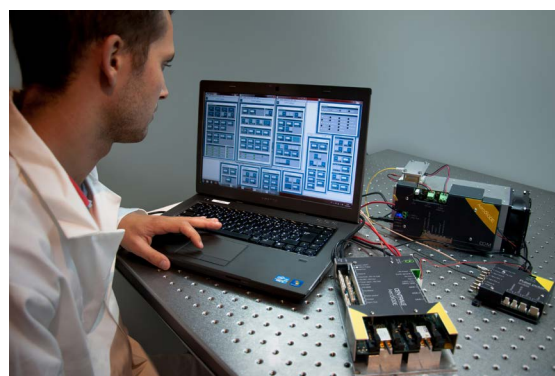


CW & Pulsed

SHAPER



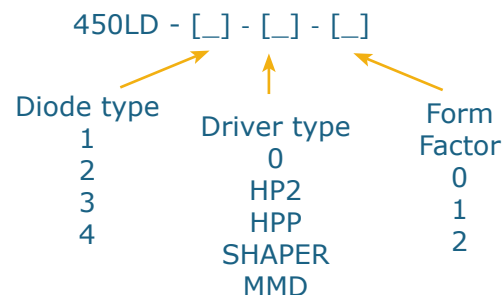
CCM (for Multimode diodes)



Classification :

Name	450LD :
Diode type	1: 50mW Butterfly singlemode 2: 7W multimode 3: 20W multimode 4: 30W multimode
Driver Electronics :	0: No driver - laser diode alone HP2: CW driver (for CW laser emission only) HPP: Pulse and CW driver SHAPER: User design temporal pulse shape MMD: High power CCM(I) (for multimode diodes)
Form Factor	0: No driver - laser diode alone 1: Open-Frame 2: Turn-Key Integrated version

Ordering information :



Photos : ALPhANOV - Version 10/24