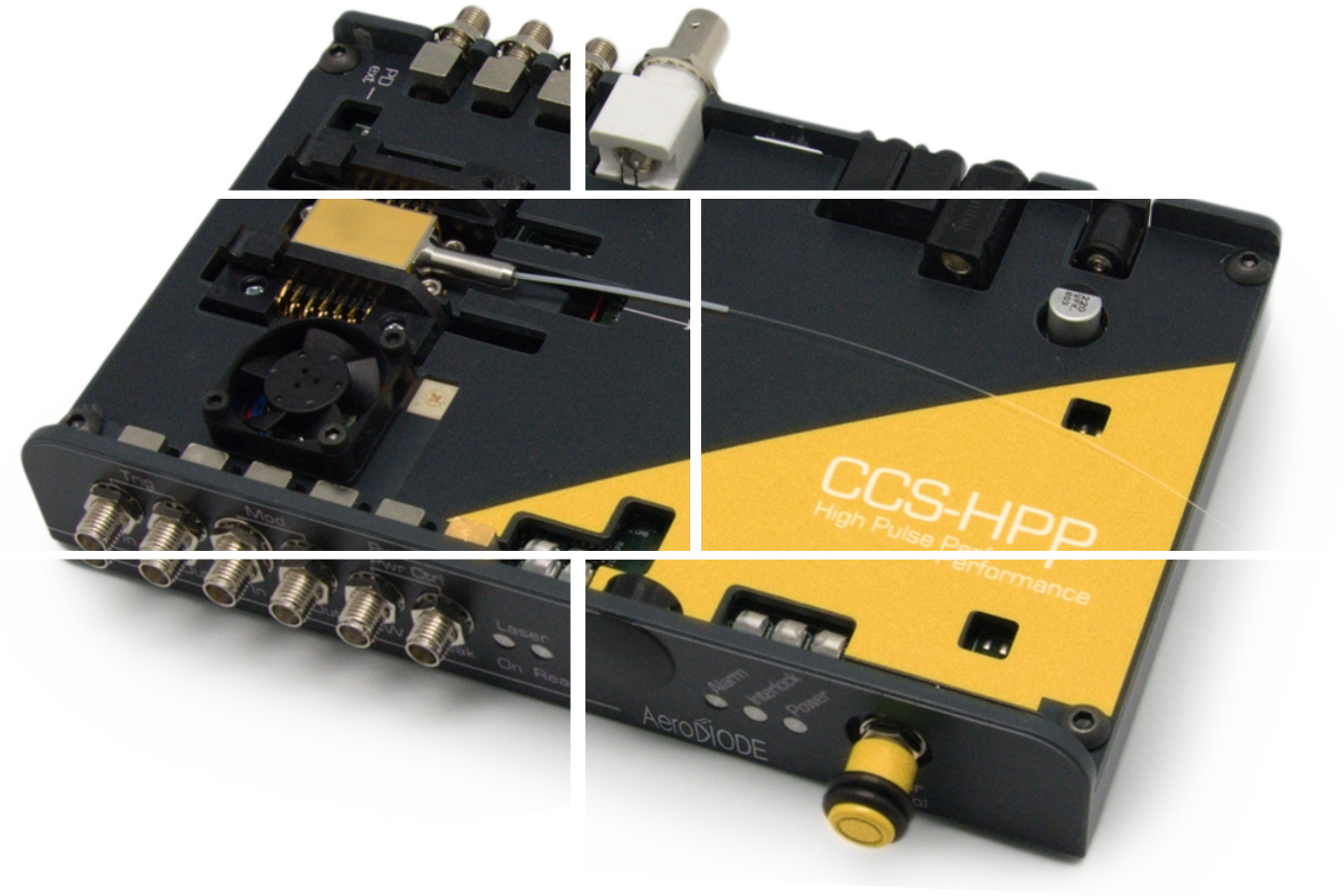
450nm Laser diode & Turn-key solutions



AeroDIODE

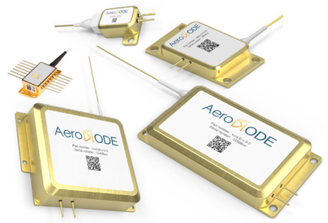
www.aerodiode.com

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	15W	15W	3A - 18V				~ 3nm	49*34*13.2
4	20W	20W	3A - 27V				~ 3nm	66.5*36*15.1

2nd Choose your Driver performance:

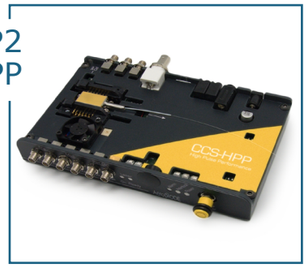
LASER DRIVER VERSION :

	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 15W 20W	Not compatible			7W / 7W 15W / 15W 20W / 20W
User design Pulse shape	Any	No	No (On -off only)	Yes	No
Laser diode T°		15 - 50 °C			15 - 40 °C
Pulse duration (Ext trigger)		CW only	0.5ns - CW	0.5ns - 8µs	10µs - CW
Pulse duration (Internal pulse generator)			0.5ns - 500ns		No
Typ rise/fall time ; Min Pulse duration			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			

3rd Choose your product form factor : OPEN-FRAME or TURN-KEY

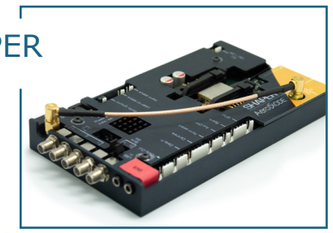
OPEN-FRAME VERSIONS:

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

TURN-KEY VERSIONS:

CCSI-HP2
CCSI-HPP



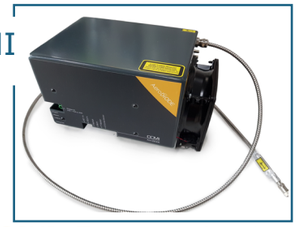
➢ Integrated version for CW and HP electronics Boards

SHAPER-I



➢ Integrated version for Shaper electronics Board

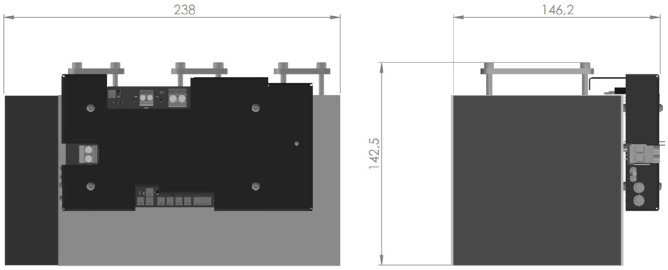
CCMI



➢ «CCMI» Turn-key driver for Multimode diodes

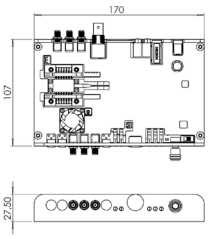
Technical Specifications

GUI (examples):

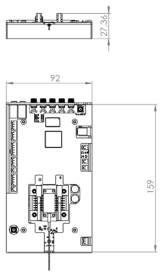


CCM (for Multimode diodes)

Mechanical (examples):



CW & Pulsed



SHAPER

Ordering guide :

Please be advised that compatibility for certain options and wavelengths is model-specific. Refer to the product webpage for a comprehensive list of part numbers.

Wavelength	Laser diode model	Driver model	Form factor	Fiber type	Internal isolator	Laser diode options*	Driver options*
[...]LD	[...]	ø : No driver	ø : No driver	SM : Singlemode fiber	ø : No int. isolator (multimode diode)	ø : No laser diode option	ø : No driver option
	See website for more information.	CW : CCS-CW	1 : Open frame	PM : Polarization maintaining fiber	NI : No int. isolator (singlemode diode)	T2 : Type 2 (2)	250 : 250 MHz (4)
		HP2 : CCS-CW-HP2	2 : Integrated	MM : Multimode fiber	II : Internal isolator	T2T : Type 2 Bias T (2)	FUCE : Benchtop (5)
		STD : CCS-std	OEM : For integration (1)		I2 : Internal double stage isolator	T2A : Type 2 Bias T Anode Grounded (2)	**Only for CCM driver models :**
		HP : CCS-HP				TS : Special type (2)	LN : Ultra-low Noise version
		UHP : CCS-UHP				FBG : Fiber Bragg Grating	TOMBAK : Synchro-nization module
		HPP : CCS-HPP				FI : External fiber isolator	DB : Double board
		LN : CCS-LN				FI2 : External fiber double stage isolator	FUCE-STD
		TDL : TDLAS				**Only for laser diodes > 1 W :**	FUCE-HP
		SHA : Shaper				SMA-HP : High power connector	
		CEN : Centrale				R : Red aiming beam	
		CCMMINI				LX : specific fiber length (X in cm) (3)	
		CCMSTD				CX : specific core diameter (X in µm) (3)	
		CCMHP					
		CCMUHP					

(1) Not available for CCM driver models.
(2) Only compatible with some of the singlemode laser diodes.
(3) Please contact us.
(4) Available only for driver models STD, HP and UHP.
(5) Available only for integrated driver models CW, STD, HP and UHP.
*Each option is separated by a slash.

The Part Number list is subject to update. Access the current version here.

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