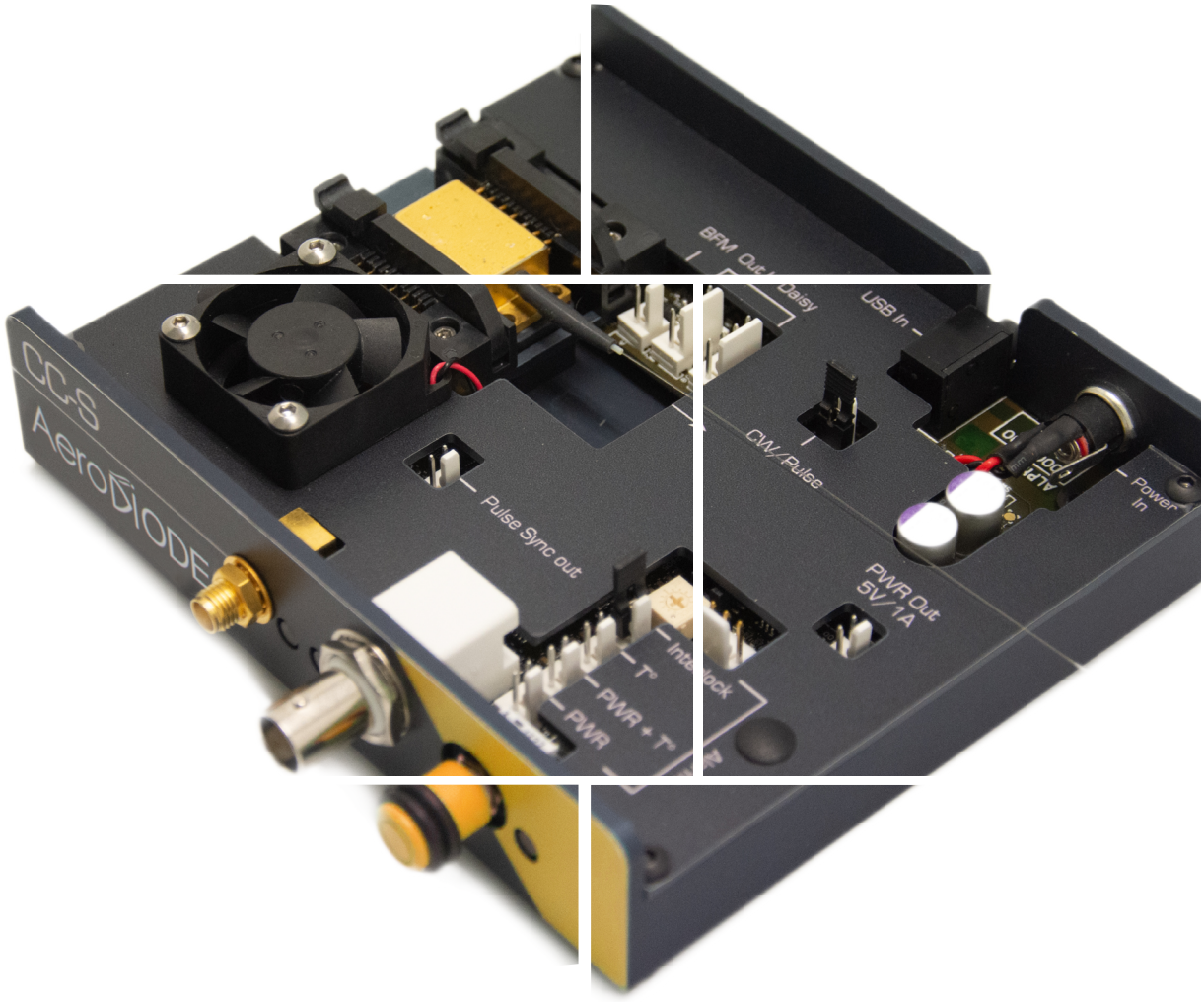
976 nm laser diode & turn-key solutions



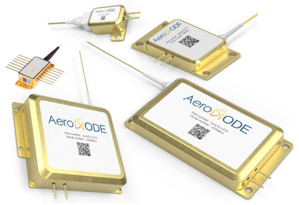
AeroDIODE

www.aerodiode.com

976 nm 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 turn-key laser diode driver. All modules have narrow emission linewidth.



1st Choose your laser diode :

Diode type	Power (CW)	Power (Pulse)	Technology	Wavelength (nm)	Fiber	Emisison Band-width (typ)	Package (mm)
1	500 mW	1000 mW	Butterfly single mode	976±0.5nm	SPM 980	~0.1 nm	14 pin Butterfly-type 1
2	1000 mW	1500 mW					
3	10 W	10 W	Multimode single emitter		106 µm NA=0.22	~0.5 nm	17*14*6.1
4	30 W	30 W	Multimode multi emitter				25*43*11
5	60 W	60 W					80*48*16
6	100 W	100 W		976±1nm		~1.0 nm	80*80*25
7	140 W	140 W					

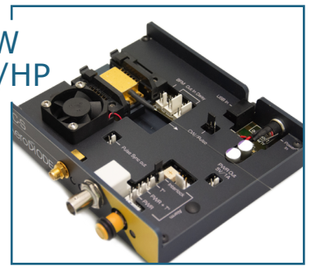
2nd Choose your Driver performance :

	976 nm Laser Diode version	LASER DRIVER VERSION : CW Driver (for singlemode diodes : «CCS-CW» is the open driver and CCSI-CW 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 500 mW	500 mW / No	500 mW / 1000 mW	No / 800 mW	Not compatible
	2- single mode 1000 mW	900 mW / No TDLAS : 1000 mW / No	450 mW / 1500 mW	No / 900 mW	
	3-6: Multimode : 10 W/30 W/ 60 W / 100 W or 140 W	Not compatible			10 W / 10 W 30 W / 30 W 60 W / 60 W 100 W / 100 W 140 W / 140 W
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	0.5 ns - CW	0.5 ns - 8 µs	10 µs - CW
Pulse duration (Internal pulse generator)			0.5 ns - 500 ns		No
Typ rise/fall time ; Min Pulse duration			3 (ns/A) ; 1.5 ns	< 1ns/A ; 1.5 ns	few µsec
Internal rep rate adjustment			1 Hz - 4 MHz (250 MHz optional)	1 Hz - 20 MHz	No
Temporal Jitter			< 25 ps	< 2 ns	
Adj. CW offset (pulse regime)			Optional	No	Yes (external mode)
Interface/GUI/libraries		USB - Windows 7/10 - DLLs - Hexa/Linux - Labview - Python			

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

OPEN-FRAME VERSIONS :

CCS-CW
CCS-std/HP



➢ Open-frame driver for CW, std and HP electronics Boards for single mode diodes

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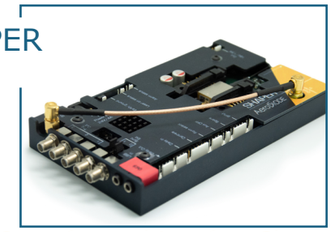
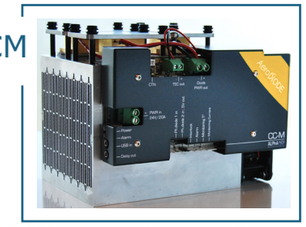


➢ Open-frame driver for «Shaper» electronic Board and single mode diodes

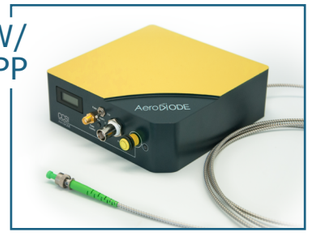
CCM



➢ «CCM» Open-frame driver for Multimode diodes (10-180W)

INTEGRATED VERSIONS :

CCSI-CW/
std/HP/HPP

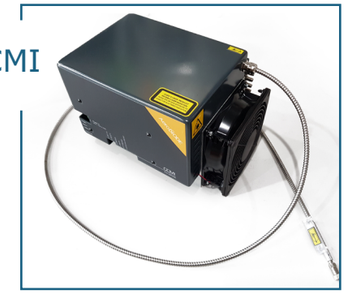


➢ Integrated version for CW, std and HP electronics Boards

SHAPER-I

➢ Integrated version for Shaper electronics Board

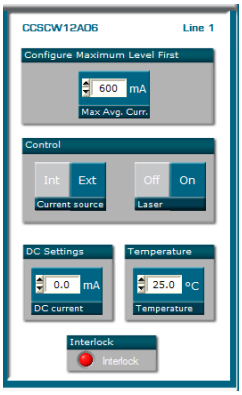
CCMI

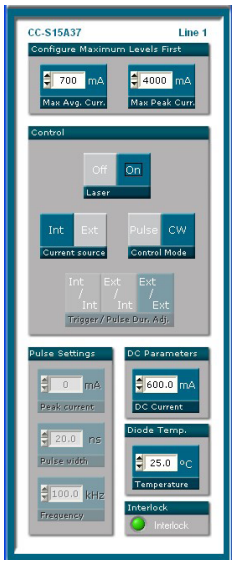


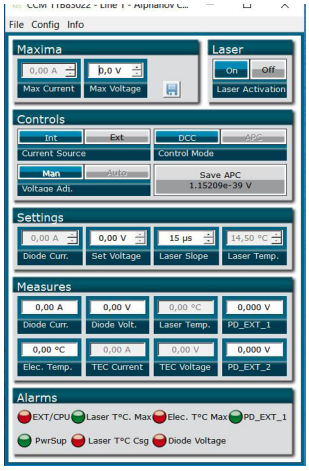
➢ «CCMI» Open driver for Multi-mode diodes (10-180W)

Technical Specifications

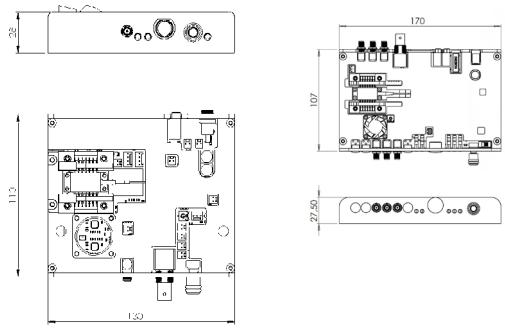
GUI (examples)



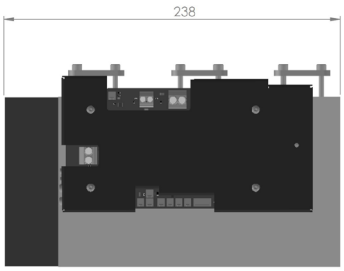




Mechanical (examples) :



CW & Pulsed



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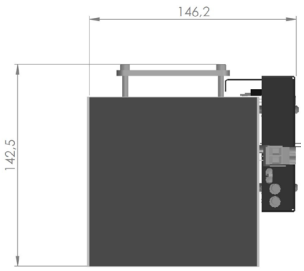
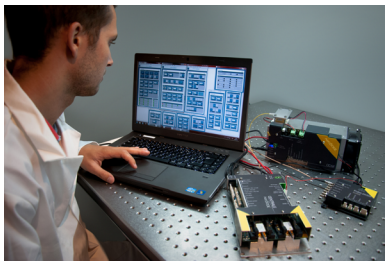


CCM (for Multimode diodes)



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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