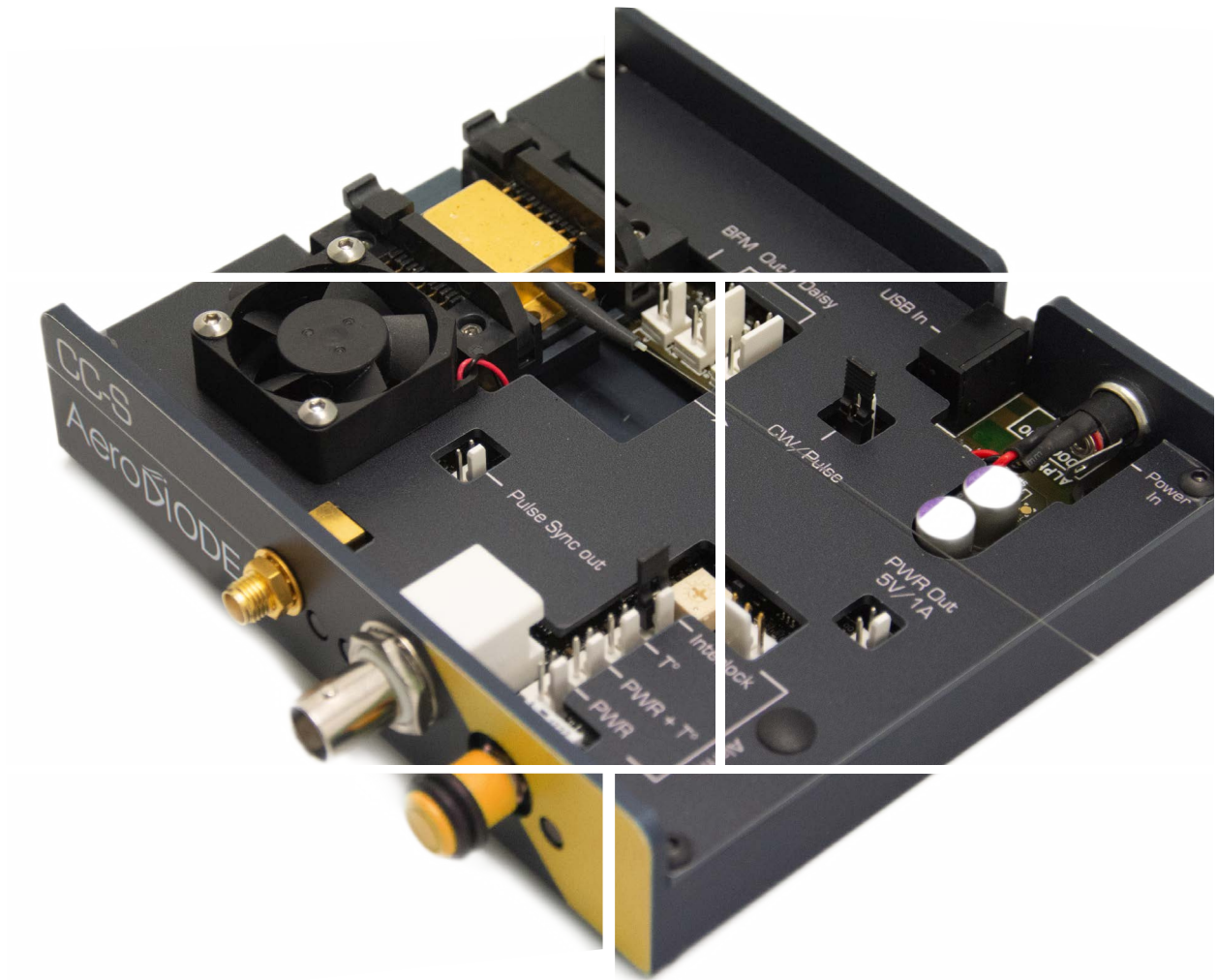# 940 nm Laser diodes & Turn-key solutions
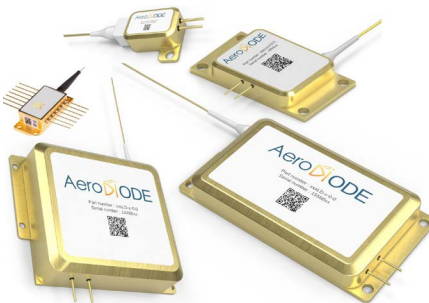

![AeroDIODE]

940 nm laser

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

Standard singlemode or multimode laser diodes are offered as stock items or combined with a CW or pulsed turn-key laser diode driver.

1st Choose your laser diode :

Diode model	Power (CW)	Power (Pulse)	Technology	Wavelength (nm)	Fiber (or eq.)	Emisison Bandwidth (typ)	Package (mm)
1a	100 mW	170 mW	Butterfly single mode	940 ± 5nm	Hi 1060 PM 980	~1 nm [0.2 nm with FBG OPTION]	14 pin Butterfly-type 1
1b	300 mW	450 mW		940 ± 3nm			
2	10 W	10 W	Multimode single emitter	940 ± 5 nm	Multimode 106 µm NA=0.22	~6 nm	31*17*6.1
3	30 W	30 W	Multimode multi emitter				25*43*11
4	70 W	70 W					48*80*16
5	150 W	150 W					80*80*25
6	200 W	200 W			200 µm NA=0.22		80*80*25

2nd Choose your Driver performance :

LASER DRIVER VERSION :

940 nm Laser Diode 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-std» is the open driver and CCSI-std is the integrated version)	User design pulse shape Driver («Shaper» open driver / «Shaper-I» integrated version) 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 100 mW 300 mW	100 mW / No 300 mW / No	100 mW / 170 mW 300 mW / 450 mW	No / 170 mW No / 450 mW	Not compatible
2- Multimode : 10 W 30 W 70 W 150 W 200 W	Not compatible			10 W / 10 W 30 W / 30 W 70 W / 70 W 150 W / 150 W 200 W / 200 W Not compatible
User design Pulse shape	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 optical pulse duration (Butterfly package diodes)		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)		No		Yes [external mode]
Interface/GUI/libraries	USB - Windows 7/10 - DLLs - Hexa/Linux - Labview - Python			

(Laser diode T° "Any" applies across driver versions; Pulse duration rows apply to CW/Pulse & Shaper columns)
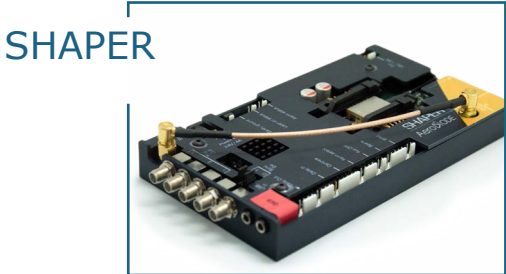
3rd Choose your product form factor : OPEN-FRAME or INTEGRATED

OPEN-FRAME VERSIONS :

CCS-CW CCS-std/HP
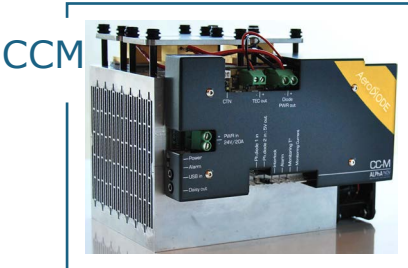
➤ Open-frame driver for CCS-CW, CCS-std and CCS-HP electronics Boards for single mode diodes

SHAPER

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

CCM

➤ «CCM» Open-frame driver for Multimode diodes (10-200W)

INTEGRATED VERSIONS :

CCSI-CW/ std/HP/HPP
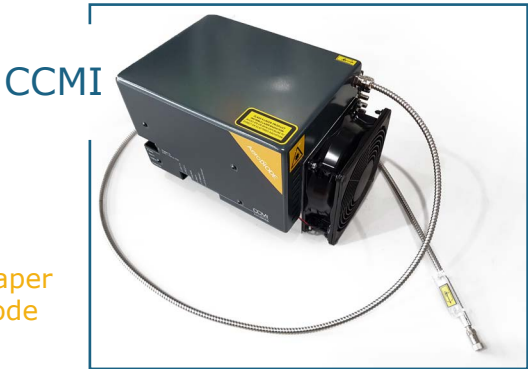
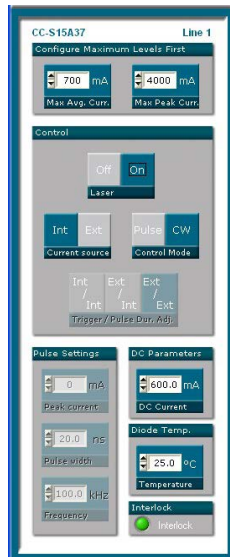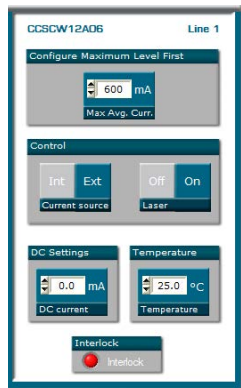➤ Integrated version for CW, std and HP electronics Boards

SHAPER-I

➤ Integrated version for Shaper electronics Board (single mode diodes)
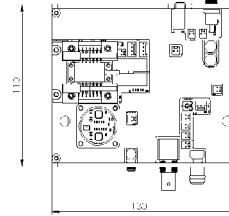
CCMI

➤ «CCMI» Integrated driver for Multimode diodes (10-200W)

AeroDIODE

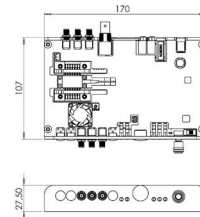# Technical Specifications

GUI (examples)
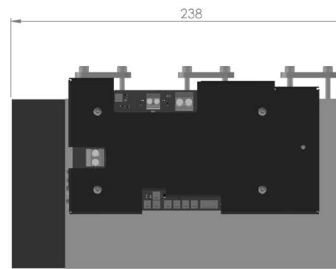

Mechanical (examples) :
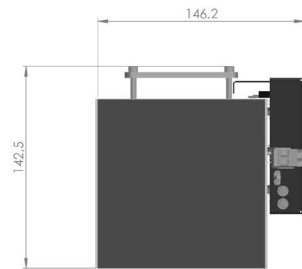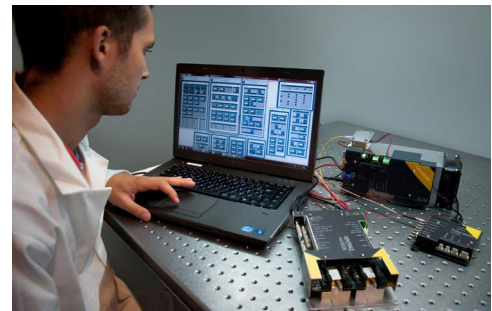

CW & Pulsed   SHAPER

CCM (for Multimode diodes)

OPTIONS (see all prices on the website page):

* PM fiber output

* Narrow spectrum (FBG-based)

* High speed diode+driver optimization (for 1-5 ns range)

* Optical collimator (3mm or high power 10 mm version)

* 250 MHz rep rate for pulse diode +driver versions

* Special Benchtop version for lab use (see the description on the website page and the picture below)

Classification :

Name	940LD:
Diode type	0: Laser diode only 1a: 100 mW Butterfly singlemode 1b: 300 mW Butterfly singlemode 2: 10 W multimode 3: 30 W multimode 4: 70 W multimode 5: 150 W multimode 6 : 200 W multimode*
Driver Electronics	0: No driver (laser diode alone) 1: CCS/CCSI-CW (CW laser emission only - for singlemode laser diodes) 2: CCS-CCSI-std (Pulsed and CW Driver - for singlemode laser diodes) 3: SHAPER (User design temporal pulse shape - for singlemode laser diodes) 4: CCM/CCMI (for multimode high power laser diodes)
Form Factor	0: No driver (laser diode alone) 1: Open frame driver version 2: Integrated driver version

*Laser diode only. Not compatible with AeroDIODE air-cooled drivers.

Ordering information :

940LD - [_] - [_] - [_]

Diode type	Driver type	Form factor
1a	0	0
1b	1	1
2	2	2
3	3	
4	4	
5		