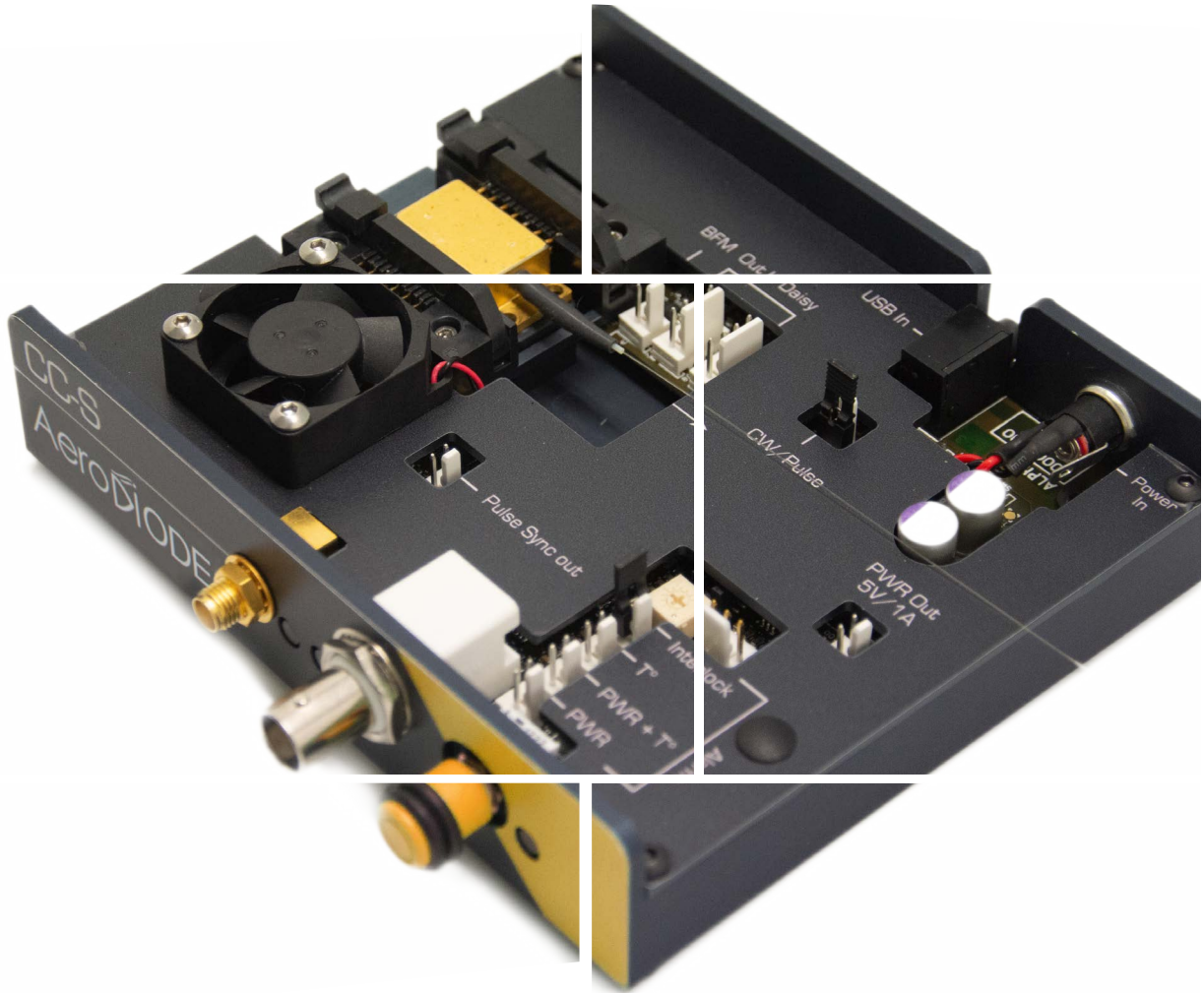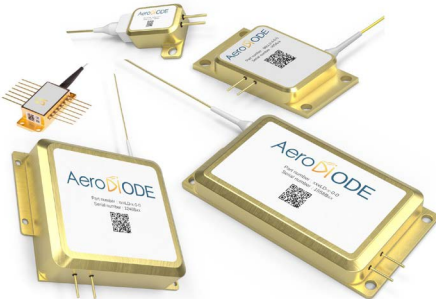# 790-795 nm
Laser diodes
& Turn-key solutions

AeroDIODE

790-795 nm laser diode

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

Standard singlemode or multimode laser diodes in the 790-795 nm wavelength range 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)
1	250 mW	400 mW	Butterfly single mode	790 ± 5 nm (792 nm ± 1 nm with FBG option)	Hi 780 PM 780	~1 nm (0.2 nm with FBG OPTION)	14 pin Butterfly-type 1
2	8 W	4 W	Multimode single emitter	793 ± 3 nm	Multimode 105 µm NA=0.22	~ 3 nm	31*17*6.1
3	30 W	12 W					25*43*11
4	50 W	50 W	Multimode multi emitter				48*80*16
5	110 W	110 W				~ 5 nm	80*80*25
6	130 W	130 W					190*73*22
7	180 W	180 W					222*50*24.9

2nd
Choose your Driver performance :

LASER DRIVER VERSION :

790-795 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	250 mW / No	250 mW / 400 mW	No / 400 mW	Not compatible
2- Multimode : 8 W / 30 W / 50 W / 110 W	Not compatible			8 W / 8 W 30 W / 30 W 50 W / 50 W 110 W / 110 W (no driver available for 130 W or 180 W models)
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		

(Note: the "Any" label applies to the 790-795 nm Laser Diode version column across the lower rows)

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

OPEN-FRAME VERSIONS :

SHAPER

CCS-CW
CCS-std/HP

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

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

CCM

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

INTEGRATED VERSIONS :

SHAPER-I

CCSI-CW/std/HP/HPP

CCMI

➤ Integrated version for CW, std and HP electronics Boards
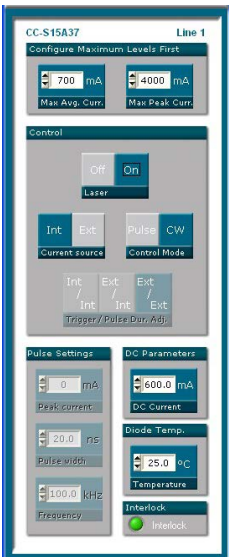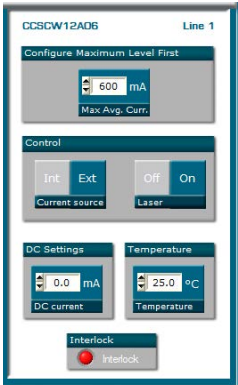
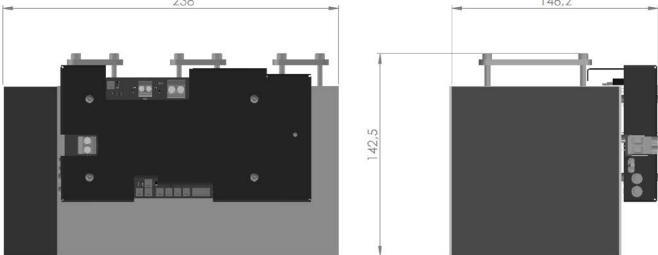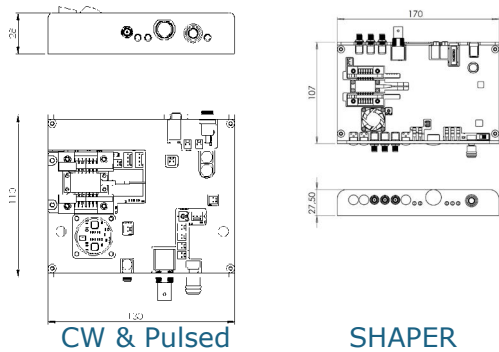➤ Integrated version for Shaper electronics Board (single mode diodes)

➤ «CCMI» Integrated driver for Multimode diodes (4-140 W)

Technical Specifications

GUI (examples)

CCSCW12A06   Line 1

Configure Maximum Level First

| 600 | mA |

Max Avg. Curr.

Control

Int | Ext   Off | On

Current source   Laser

DC Settings   **Temperature**

| 0.0 | mA | | 25.0 | °C |

DC current   Temperature

Interlock

Interlock

CC-S15A37   Line 1

Configure Maximum Levels First

| 700 | mA | | 4000 | mA |

Max Avg. Curr.   Max Peak Curr.

Control

Off | On

Laser

Int | Ext   Pulse | CW

Current source   Control Mode

Int/Int | Ext/Int | Ext/Ext

Trigger / Pulse Dur. Adj.

Pulse Settings   **DC Parameters**

| 0 | mA — Peak current | 600.0 | mA — DC Current

| 20.0 | ns — Pulse width   **Diode Temp.** | 25.0 | °C — Temperature

| 100.0 | kHz — Frequency

Interlock — Interlock

Mechanical (examples) :

CW & Pulsed

SHAPER

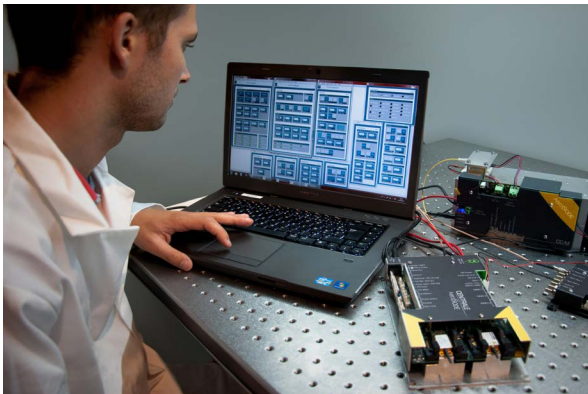## OPTIONS (see all prices on the website page) :

* PM fiber output

* Narrow spectrum (FBG-based)

* 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)

CCM (for Multimode diodes)

Classification :

Name	790LD :	
Diode type	0: Laser diode only 1: 250 mW Butterfly singlemode 2: 8 W multimode 3: 30 W multimode 4: 50 W multimode	5: 110 W multimode 6: 130 W multimode 7 : 180 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	

Ordering information :

790LD - [_] - [_] - [_] - Options

Diode type
1
2
3
4
5
6
7

Driver type
0
1
2
3
4

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