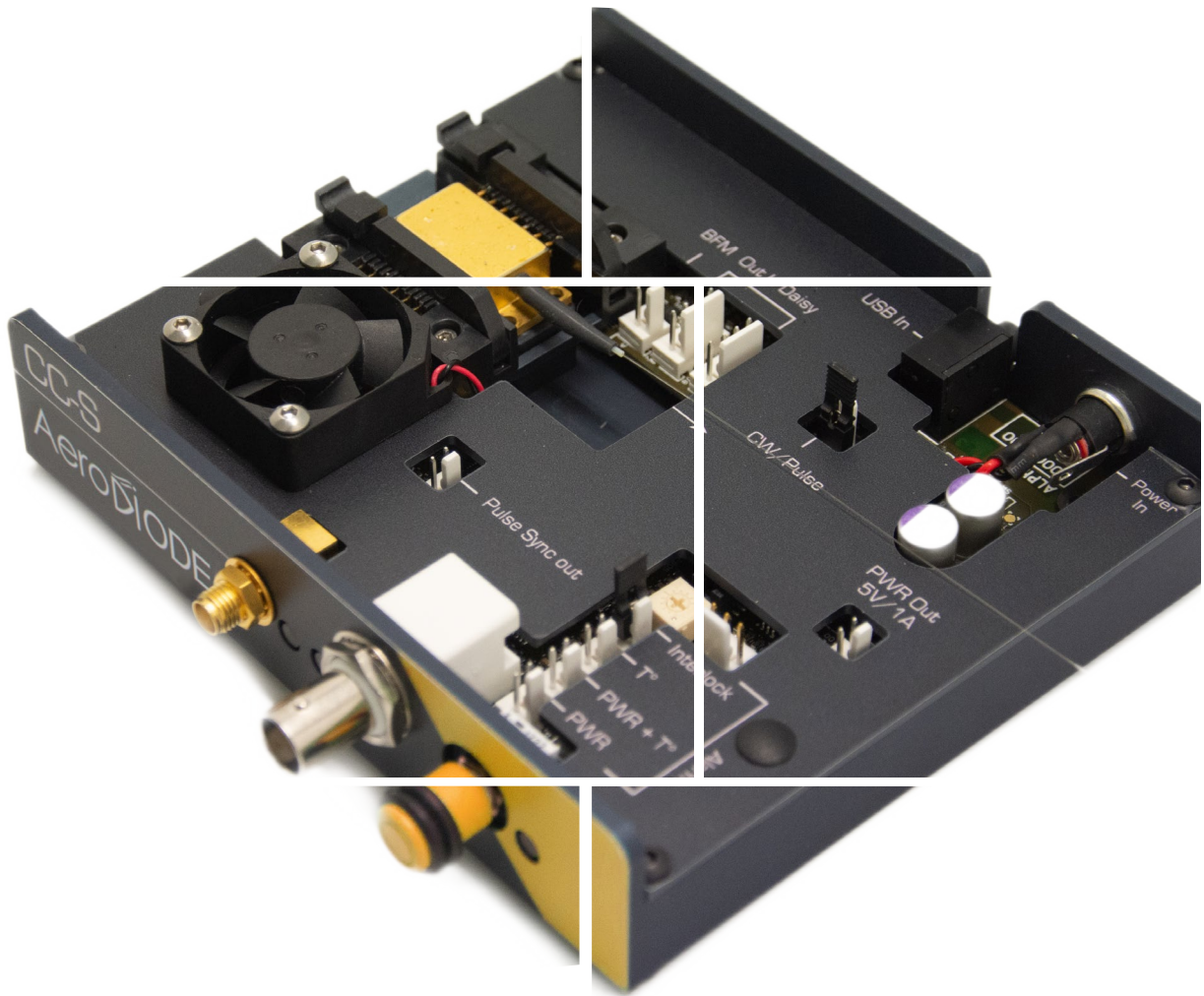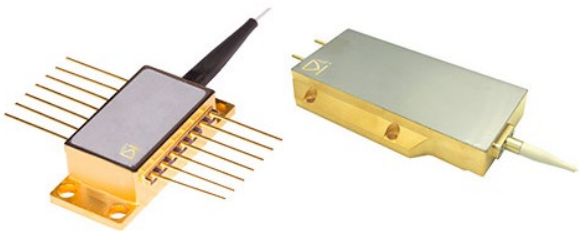# 980 nm laser diode
& Turn-key solutions

![AeroDIODE logo]

980 nm laser diode

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

Standard singlemode or multimode laser diodes are sourced from the most reliable manufacturers and offered as stock items or associated with a CW or pulsed turn-key laser diode driver.
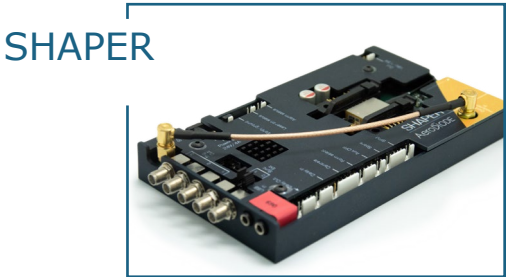
1st Choose your laser diode :

Diode type	Power (CW)	Power (Pulse)	Technology	Wavelength (nm)	Fiber	Emisison Bandwidth (typ)	Package (mm)
1	350 mW	1000 mW	Butterfly single mode	981±0.5nm	PM 980	~0.1 nm	14 pin Butterfly-type 1
2	750 mW	1200 mW	Butterfly single mode	981±0.5nm	PM 980	~0.1 nm	14 pin Butterfly-type 1
3	10 W	10 W	Multimode single emitter	980 ± 10 nm	Multimode 106 µm NA=0.22	~5 nm	50*8.5*7.7
4	30 W	30 W	Multimode multi emitter	980 ± 10 nm	Multimode 106 µm NA=0.22	~5 nm	43*25*10.6
5	70 W	70 W	Multimode multi emitter	980 ± 10 nm	Multimode 106 µm NA=0.22	~5 nm	80*48*16
6	150 W	150 W	Multimode multi emitter	980 ± 10 nm	Multimode 106 µm NA=0.22	~5 nm	80*80*24.8

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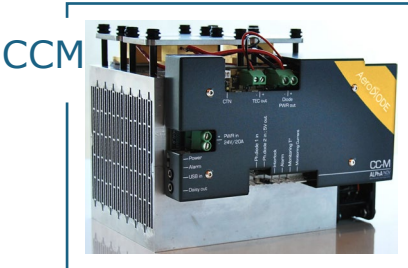
OPEN-FRAME VERSIONS :

CCS-CW CCS-std/HP

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

SHAPER

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

CCM

➤ «CCM» Open-frame driver for Multimode diodes

2nd Choose your Driver performance :

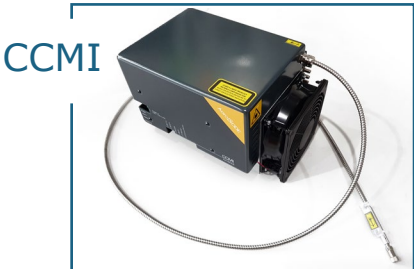|	808 nm Laser Diode version	CW Driver (for singlemode diodes : «CCS-CW» is the open driver and CCSI-CW is the integrated version)	Pulse & CW Driver (from 1 ns to CW : «CCS» is the open driver and CCSI is the integrated version)	User design pulse shape Driver («SHAPER» open driver from 0.5 ns to 8 µs)	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 300 mW	350 mW / No	350 mW / 1000 mW	No / 1000 mW	Not compatible
	2- single mode 600 mW	750 mW / No	750 mW / 1200 mW	No / 1200 mW	Not compatible
	3-6: Multimode : 10 W/30 W/ 70 W or 150 W	Not compatible	Not compatible	Not compatible	10 W / 10 W 30 W / 30 W 70 W / 70 W 150 W / 150 W
User design Pulse shape		No	No (On-Off only)	Yes	No
Laser diode T°	Any	15 - 50 °C	15 - 50 °C	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)		CW only	0.5 ns - 500 ns	0.5 ns - 8 µs	No
Typ rise/fall time ; Min Pulse duration		CW only	3 (ns/A) ; 1.5 ns	< 1ns/A ; 1.5 ns	few µsec
Internal rep rate adjustment		CW only	1 Hz - 4 MHz (250 MHz optional)	1 Hz - 20 MHz	No
Temporal Jitter		CW only	< 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			

INTEGRATED VERSIONS :

CCSI-CW/ std/HP/HPP

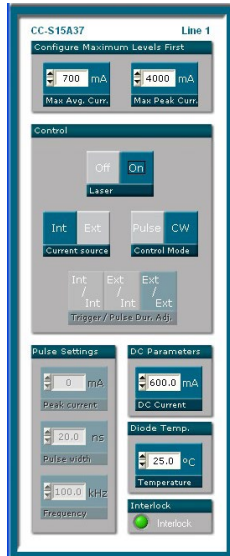➤ Integrated version for CW, std and HP electronics Boards

SHAPER-I

➤ Integrated version for Shaper electronics Board

CCMI

➤ «CCMI» Turn-Key driver for Multimode diodes

AeroDIODE

www.aerodiode.com

Technical Specifications

GUI (examples)

CCSCW12A06 — Line 1
Configure Maximum Level First
600 mA — Max Avg. Curr.
Control: Int / Ext — Current source; Off / On — Laser
DC Settings: 0.0 mA — DC current; Temperature: 25.0 °C — Temperature
Interlock

CC-S15A37 — Line 1
Configure Maximum Levels First
700 mA — Max Avg. Curr.; 4000 mA — Max Peak Curr.
Control: Off / On — Laser
Int / Ext — Current source; Pulse / CW — Control Mode
Int/Int / Ext/Int / Ext/Ext — Trigger / Pulse Dur. Adj.
Pulse Settings: 0 mA — Peak current; 20.0 ns — Pulse width; 100.0 kHz — Frequency
DC Parameters: 600.0 mA — DC Current; Diode Temp. 25.0 °C — Temperature
Interlock

CCM 11B83022 - Line 1 - Alphanov C...
File Config Info
Maxima: 0,00 A — Max Current; 0,0 V — Max Voltage
Laser: On / Off — Laser Activation
Controls: Int / Ext — Current Source; DCC / APC — Control Mode; Man / Auto — Voltage Adj.; Save APC 1.15209e-39 V
Settings: 0,00 A — Diode Curr.; 0,00 V — Set Voltage; 15 µs — Laser Slope; 14,50 °C — Laser Temp.
Measures: 0,00 A — Diode Curr.; 0,00 V — Diode Volt.; 0,00 °C — Laser Temp.; 0,000 V — PD_EXT_1; 0,00 °C — Elec. Temp.; 0,00 A — TEC Current; 0,00 V — TEC Voltage; 0,000 V — PD_EXT_2
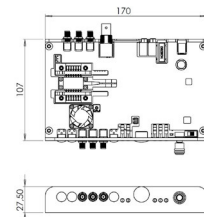Alarms: EXT/CPU, Laser T°C. Max, Elec. T°C Max, PD_EXT_1, PwrSup, Laser T°C Csg, Diode Voltage

Mechanical (examples) :

CW & Pulsed   SHAPER

CCM (for Multimode diodes)
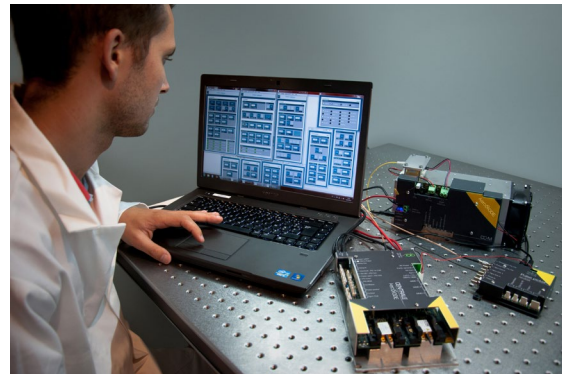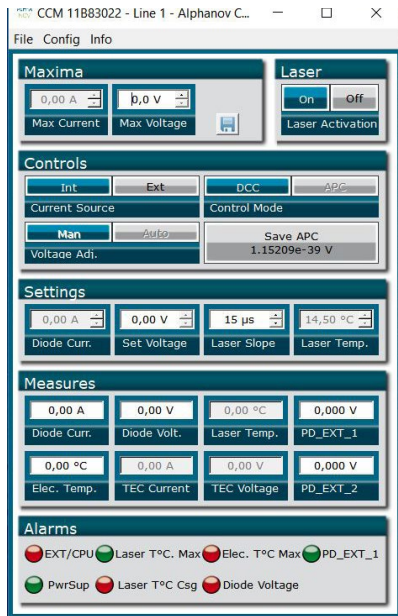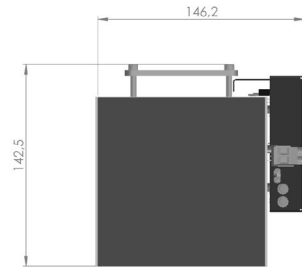
Classification :

Name	980LD :
Diode type	1: 350 mW Butterfly singlemode 2: 750 mW Butterfly singlemode 3: 10 W multimode 4: 30 W multimode 5: 70 W multimode 6: 150 W multimode
Driver Electronics :	0: No driver (laser diode only) 1: CW driver (For CW laser emission only) 2: Pulse and CW driver 3 : SHAPER (User design temporal pulse shape) 4 : High Power (for multimode diodes)
Form Factor	0 : No driver (laser diode only) 1: Open 2: Integrated

Ordering information :

980LD - [_] - [_] - [_]

Diode type	Driver type	Form Factor
1	0	0
2	1	1
3	2	2
4	3	
5	4	
6		

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