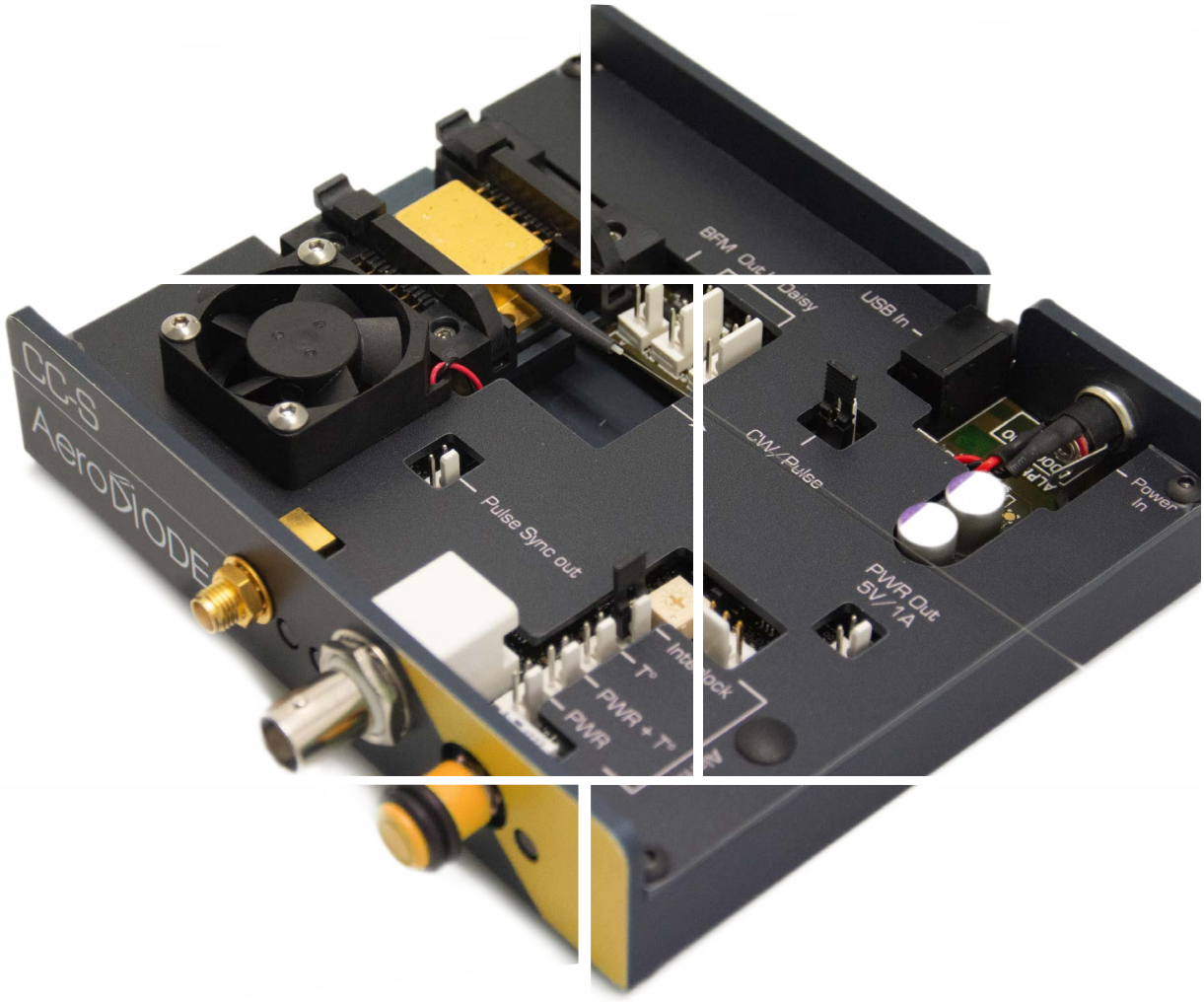
1064 nm Laser Diode & Turn-key solutions



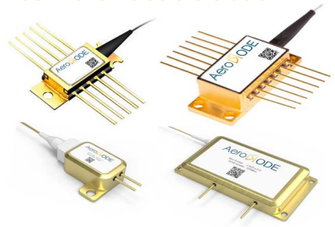
AeroDIODE

www.aerodiode.com

1064 nm laser diode

Choose your own Bragg, DFB or multimode laser diode + driver solution

Standard Bragg or DFB laser diodes are offered as Stock items or associated with a CW and/or Pulsed Turn-Key Laser Diode Driver.



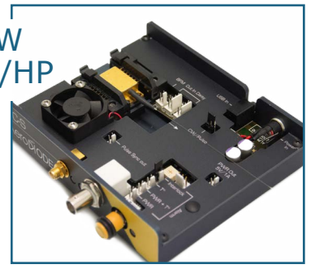
1st Choose your laser diode :

Diode type	Technology	Wavelength (nm)	Fiber	Emisison Linewidth (typ - CW)	Power Kink free (CW)	Power Kink free (Pulse)	Package
1	Standard with Bragg	1064 ±2nm (chip regulated at >30°C)	PM single-mode	1-3 nm	up to 700 mW	up to 1500 mW	14 pin - type 1
2a	DFB (for pulsing)	1063.5 ±1nm		MHz range	up to 200 mW	up to 500 mW (700 mW typical max value)	10 pin - Type 1
2b	DFB (for CW emission)	1064.0 ±1nm		~ 200 kHz			
3	Ultra Broad FBG	1064 ±2nm		> 2nm	up to 650mW	up to 2000 mW	
4	Multimode	1064 ±7nm	Multi-mode 105 µm core	3.5 nm	9 W	9 W	30*17 mm
5				4.5 nm	25 W	25 W	66.5*36 mm
6					100 W	100 W	123*63*22

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

OPEN FRAME VERSIONS :

CCS-CW
CCS-std/HP

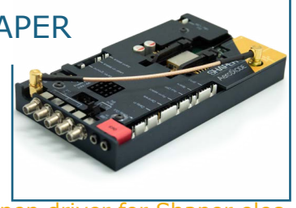


➢ Open driver for CW, std and HP electronics Boards

CCS-HPP

➢ Open driver for HPP (High Pulse Performance) electronic Board

SHAPER



➢ Open driver for Shaper electronics Board

2nd Choose your Driver performance :

LASER DRIVER VERSION :

	Laser Diode version :	CCS-CW	CCS-Std (from 1ns to CW)	CCS-HP (High Power)	CCS-HPP (High Pulse Performance)	SHAPER (User Designs Pulse Shape)	CCM/CCMI High Power (for 10-100 W models only)
Output Power - CW regime (typ) - (see the product web-page for detailed peak power performances in pulse mode - scroll down the web page)	1 - Bragg	700 mW	400 mW		550 mW	No (driver generates only pulses)	No (driver nor compatible for single-mode diodes)
	2a/2b - DFB	200 mW					
	3- Broad FBG	650 mW	500 mW				
	4 & 5 Multi-mode	No (drivers not compatible for multimode diodes)					9 W / 25 W / 100 W
User design Pulse shape	Any	No	No (On-Off Driver only)			Yes (embedded AWG)	Yes (analog)
Laser diode T° range		15 - 50 °C					15 - 40 °C
Pulse duration (Ext pulse 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		< 1 (ns/A) ; 1.5 ns		few µsec
Internal rep rate adjustment			1Hz - 4MHz	1Hz - 10MHz (250MHz optional)	1Hz - 250MHz	1Hz - 20MHz	No
Temporal Jitter			< 25 ps		< 8 ps	< 2 ns	
Adj. CW offset in pulse regime			No	Yes		No	Yes (external mode)
Interface/GUI/libraries		USB - Windows 7/10 - DLLs - Hexa/Linux - Labview - Python					

INTEGRATED VERSIONS :

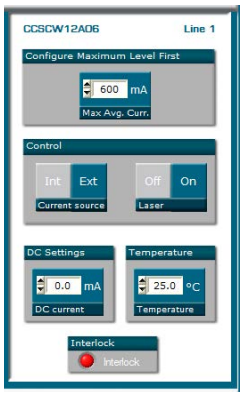
CCSI-CW/
std/HP/HPP

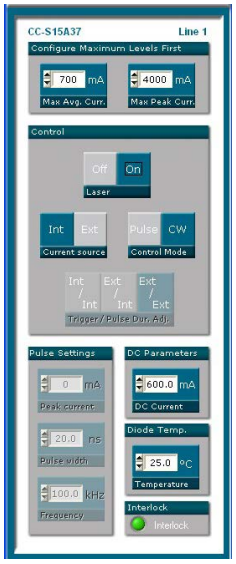
➢ Integrated version for CW, std and HP electronics board

SHAPER-I

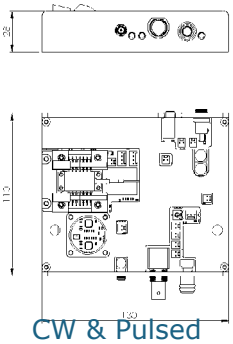
➢ Integrated version for Shaper electronics board

GUI (examples)

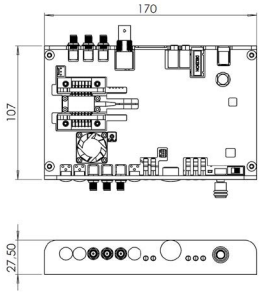




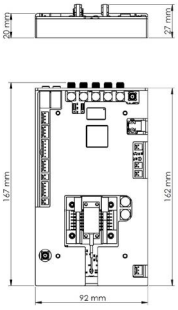
Mechanical (examples) :



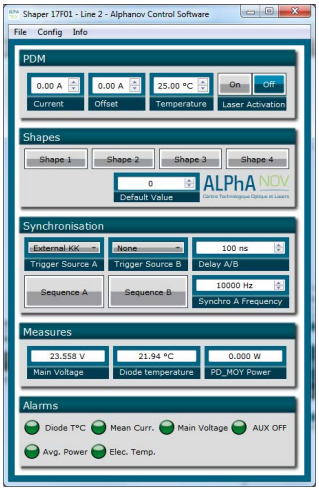
CW & Pulsed

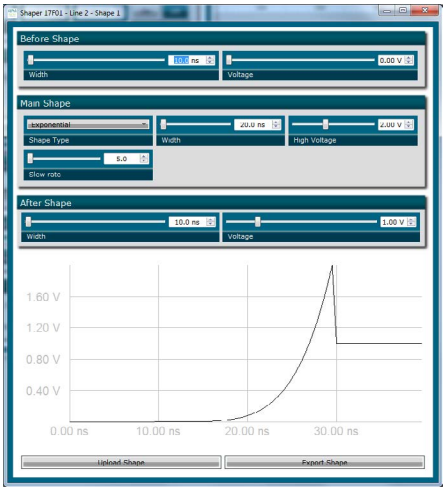


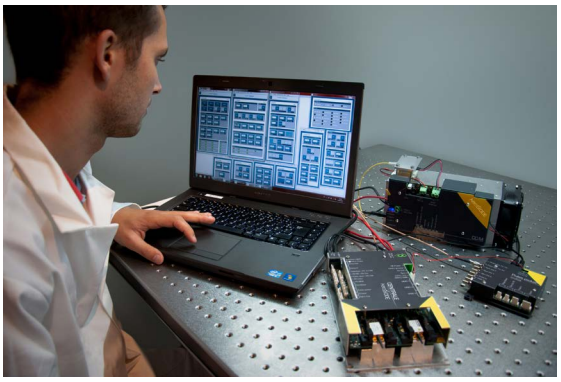
HPP



Shaper







Classification :

Name	1064LD :
Diode type	1 : Standard Fabry-Perot (14 pin Butterfly) 2a : DFB for pulsing (10 pin Butterfly) 2b : DFB for CW (10 pin Butterfly) 3 : Ultra Broad FBG (10 pin Butterfly) 4 : Multimode 9 W - 105 µm core 5 : Multimode 25 W - 105 µm core 6 : Multimode 100 W - 105 µm core
Driver electronics :	0 : No driver (laser diode only) 1: CW driver (for CW laser diode emission only) LN : Ultra Low Noise driver (for CW narrow single frequency emission) TDLAS : Low noise driver (for CW single frequency and modulation up to 300 kHz bandwidth) 2 : Std - Pulse and CW Driver 3 : HP (High Power) 4 : HPP (High Pulse Performance) 5 : SHAPER 6 : CCM/CCMI High power (For multimode diode only)
Form Factor	0 : No driver (laser diode only) 1 : Open frame 2 : Integrated

Ordering information :

1064LD - [_] - [_] - [_]

Diode type	Driver type	Form Factor
1	0	0
2a	1	1
2b	LN	2
3	TDLAS	
4	2	
5	3	
6	4	
	5	
	6	

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