SOA Driver

CW or Pulsed
High Speed - High Dynamic range

AeroDIODE

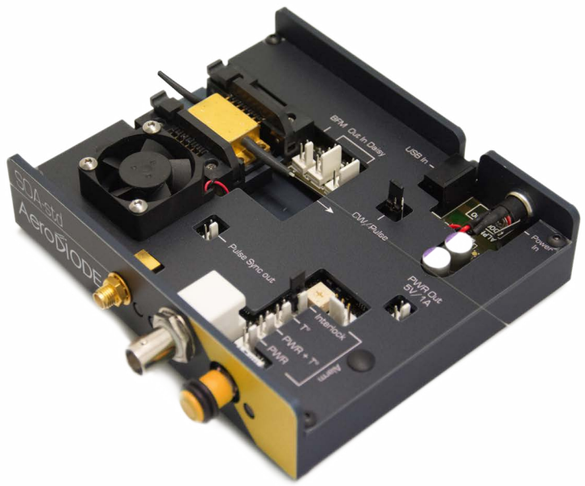
www.aerodiode.com

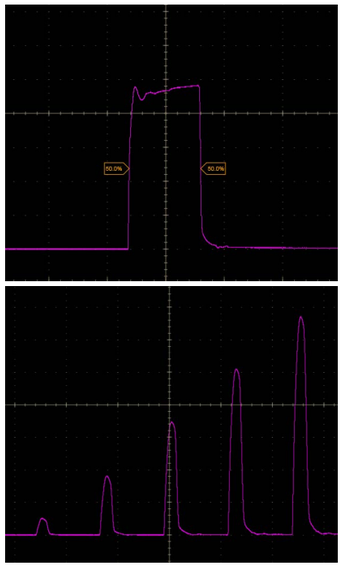
SOA Driver

Do I need a power boost, an optical switch, a full-range VOA or a high dynamic range ns-speed fiber modulator ?

SOA (Semicondutor Optical Amplifier) act as multifunctional devices. When used as intensity modulators, they become a smart alternative to AOM (Acousto Optic Modulators) or EOM (Electro Optics Modulators).

SOA-Std & SOA-HPP





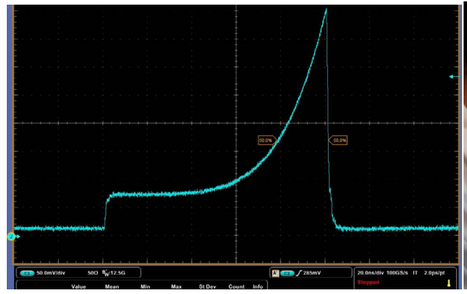
Key features

- When used with key pulsed electronic, SOA is able to act as an optical modulator. it becomes a lossless, low noise, high speed, high dynamic range, high extinction ratio and highly polarizing solution.
- User-set pulsewidth from 0.5 ns to CW ; 3 pulse generation mechanisms (internal/external)
- Timing Jitter down to 8 ps ; Rep rate up to 250 MHz
- Adjustable safety limits, current levels (average/peak), SOA temperature, etc.
- All versions can be controlled either through USB link or through an analog signal.
- 1 version also includes 3 pulse-delay-generators for external synchronizations (SOA-Shape).
- Many OEM functionalities for integration compatibility - contact us for more information
- Most versions show fast delivery for immediate customer use.
- SOA components from 750 to 1700 nm can be sourced from us or directly from key suppliers.

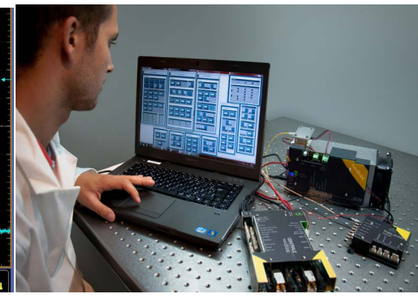
Technical Specifications

SOA-Shape

SOA-shape pulse



Aerodiode multiboard system

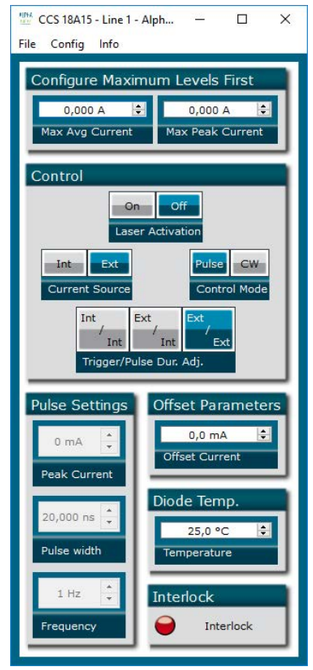


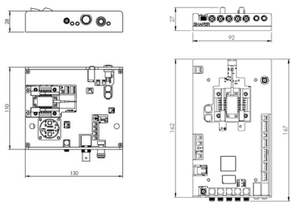
Specifications

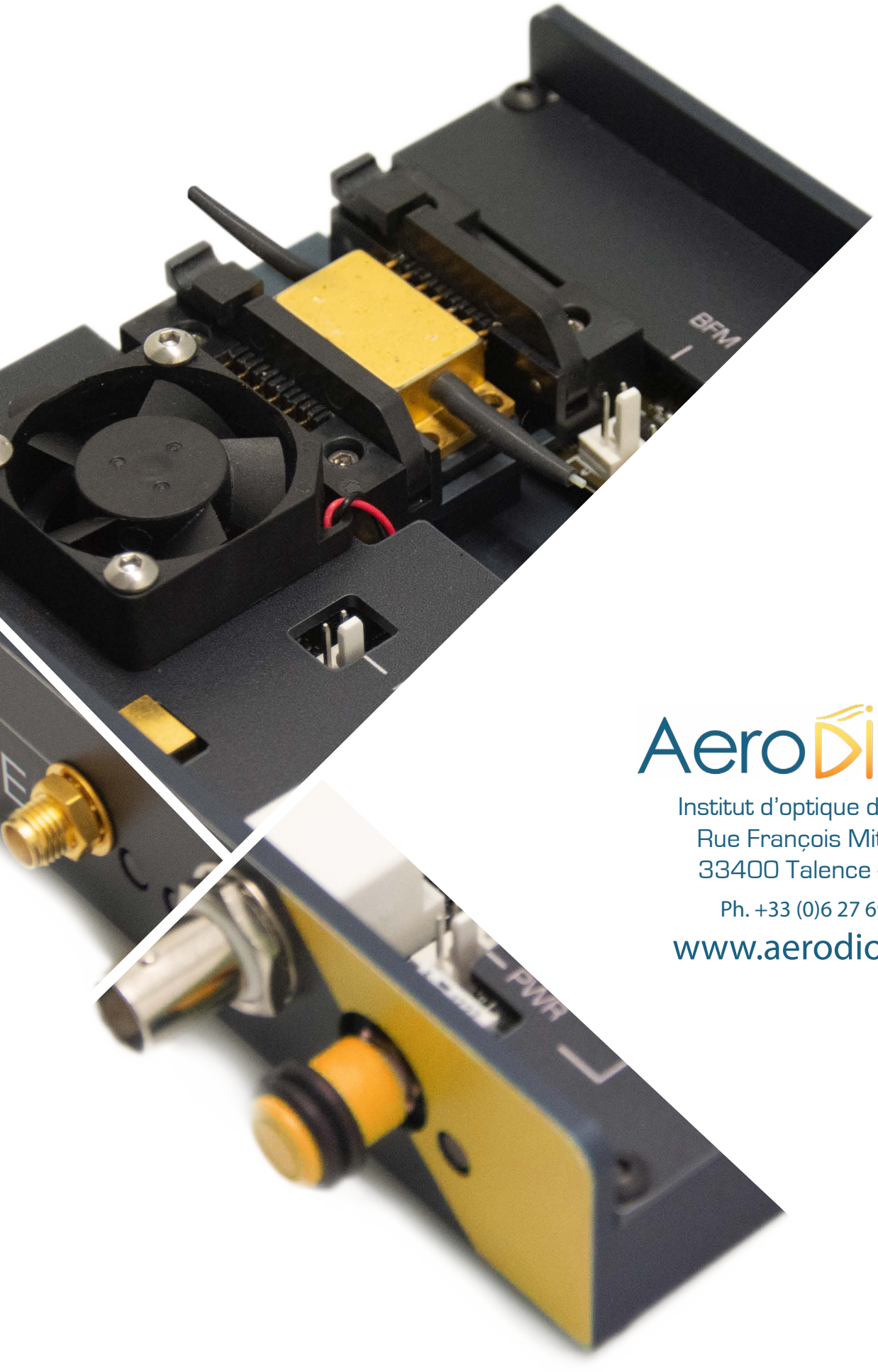
Version:	SOA-std	SOA-HPP (High Pulse Performance)	SOA-UHP-Tombak	SOA-Shape (Pulse sha-ping)
CW or Pulsed ?	CW or Pulsed	CW and/or Pulsed	CW or Pulsed	Pulsed only
Output current (CW regime)	800 mA	1000 mA	5000 mA	-
Output current (Pulse regime)	1500 mA	3500 mA	5000 mA	1600 mA
Extinction ratio (dB,typ) (SOA choice dependant) [1]	>50 dB		>70 dB	>40 dB
Switching speed (typ) (SOA choice dependant) [1]	~1 ns		5 µsec	~2 ns
Dynamic Range (up to) [1]	60 dB			48 dB
Trigger-to-pulse Jitter	<20 ps	<8 ps		<2 ns
Pulse shaping	no		no	yes
CW offset (in pulse mode)	no	yes	no	no
Max repetition rate	10 MHz	250 MHz	100 kHz	20 MHz
Max Output Power (SOA choice dependant) [1]	From 20 to 100 mW (more than 500 mW have been measured in some pulsed configuration)			
Interface/compatibilities and Libraries	USB - Windows 7/10 - DLLs - Hexa - Labview - Python			
Operating Voltage (AC/DC converter included)	12 V		24 V	24 V

[1] Contact us for technical advices to reach optimal performances

SOA-std GUI Interface







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