SOA Driver

CW or Pulsed
High Speed - High Dynamic range

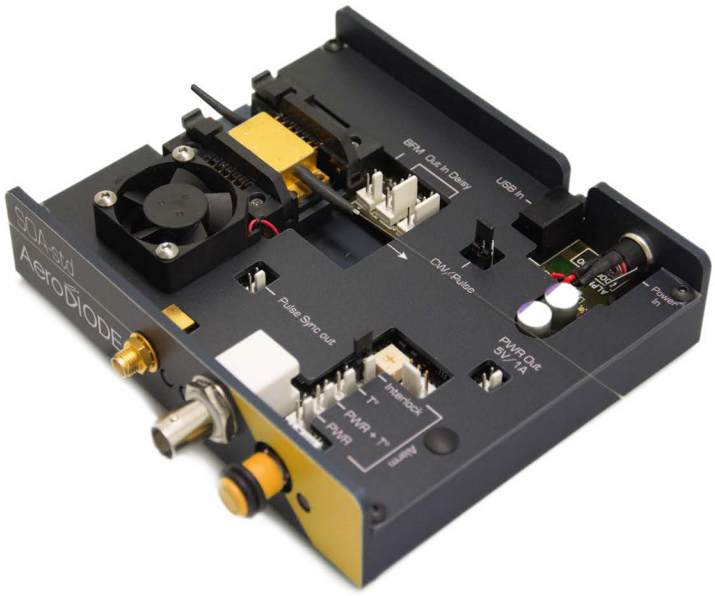
AeroDIODE

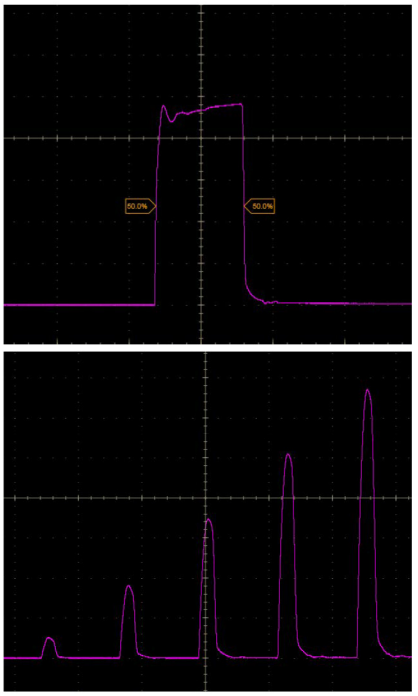
SOA Driver

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



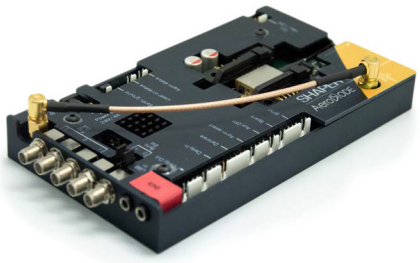


Key features

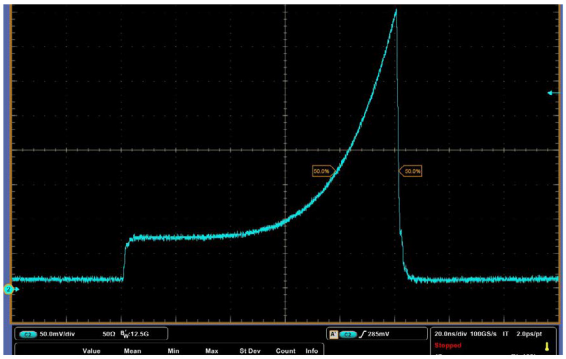
- When used with key pulsed electronic, SOA is able to act as an optical modulator. it becomes a lossless, low noise, high speed, high dynamic range, high extinction ratio and highly polarizing solution.
- User-set pulsewidth from 0.5 ns to CW ; 3 pulse generation mechanisms (internal/external)
- Timing 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

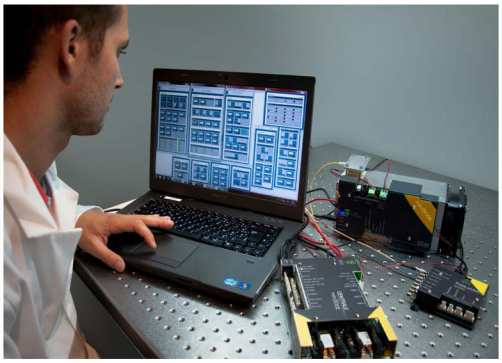
SOA-Shape



SOA-shape pulse



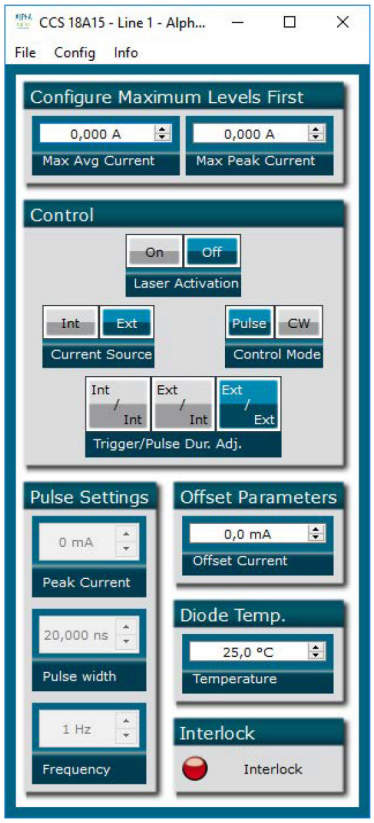
Aerodiode multiboard system

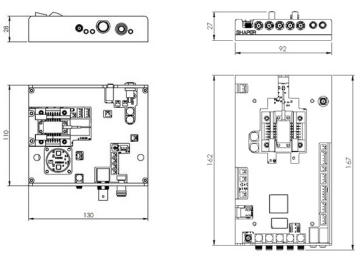


Specifications

Version:	SOA-std	SOA-HPP (High Pulse Performance)	SOA-Shape (Pulse shaping)
CW or Pulsed ?	CW or Pulsed	CW and/or Pulsed	Pulsed only
Output current (CW regime)	800 mA	1000 mA	-
Output current (Pulse regime)	1500 mA	3500 mA	1600 mA
Extinction ratio (dB,typ) (SOA choice dependant) [1]	>50 dB		>40 dB
Switching speed (typ) (SOA choice dependant) [1]	~1 ns		~2 ns
Dynamic Range (up to) [1]	60 dB		48 dB
Trigger-to-pulse Jitter	<20 ps	<8 ps	<2 ns
Pulse shaping	no		yes
CW offset (in pulse mode)	no	yes	no
Max repetition rate	10 MHz	250 MHz	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

SOA-std GUI Interface





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

PRODUCT SALES AND SERVICE:
Orders for this product are fullfilled by Laser Lab Source in North America and select internationl regions. It is manufactured by Aerodiode, Talence, France.

PRODUCT WARRANTY:
This product is sold with a full one year warranty. It is warrantied to be free from defects in material and/or workmanship for a period of one year from the date of shipment.

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