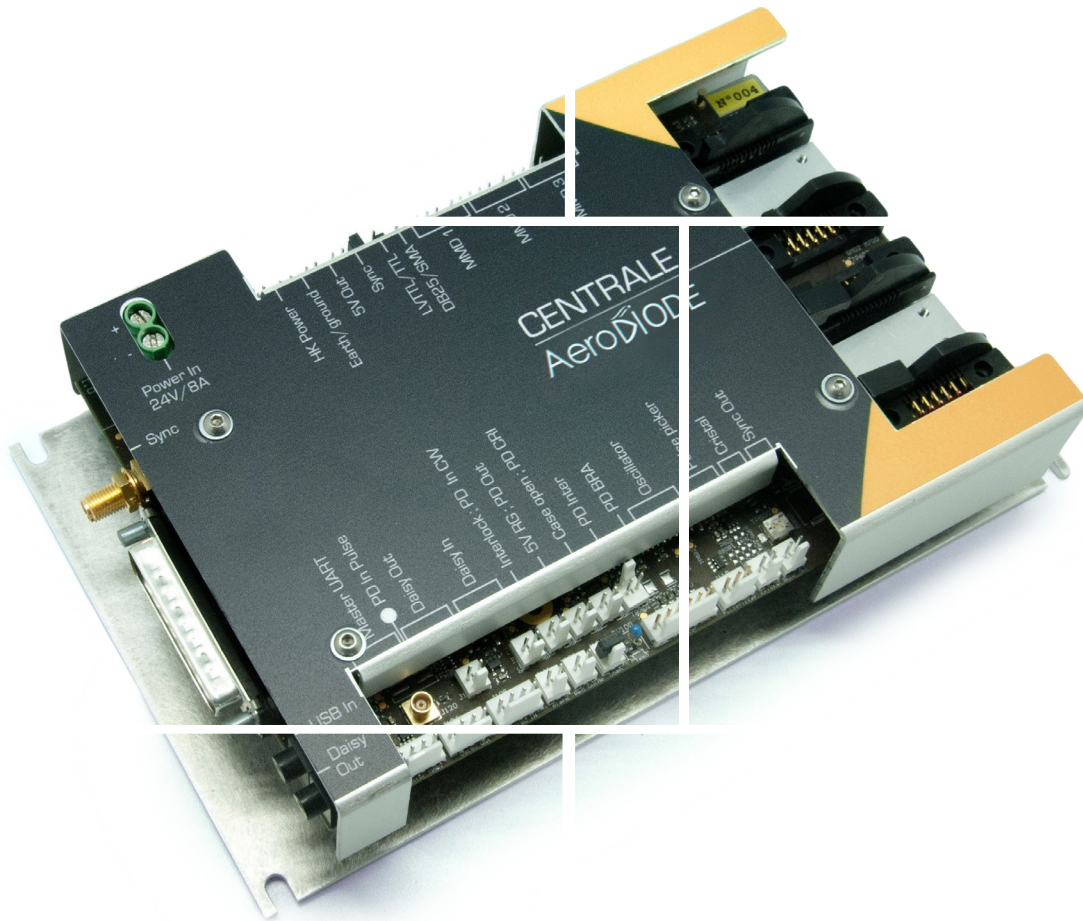


Central Electronic Board

For fiber laser R&D and integration

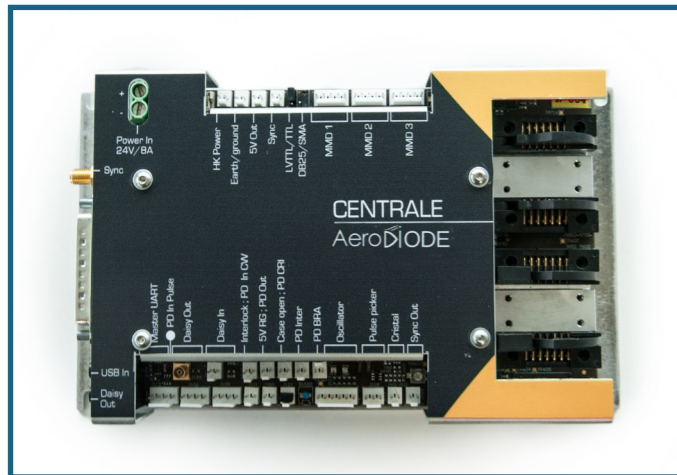


Aero  IDE

Central Electronic Board

For fiber laser R&D and rapid product development

Electronic board for driving 2 laser diodes, 6 photodiodes and other external devices for fiber lasers : it is the central element which allows to make nearly any type of fiber laser architecture from the first R&D steps to the final product made in large quantities.

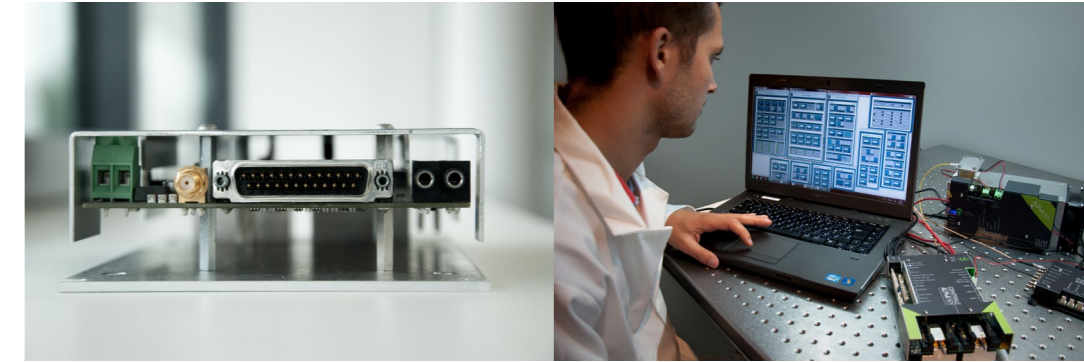
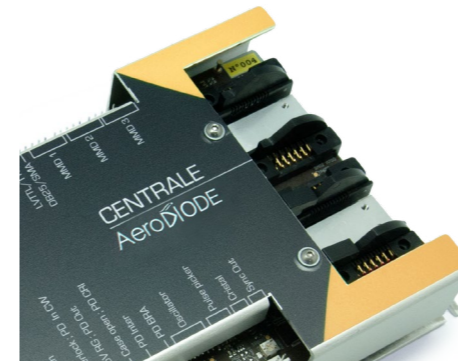


The Central Electronic Board allows to control up to two single-mode butterfly laser diodes, six photodiodes and several other external devices. It provides a simple way to control On/Off/Security stages of complex multistage fiber lasers. Its performance have been optimized to be compatible with fiber lasers constraints in term of noise, precision, response time, interlock, etc. It is the central element of ALPhANOV Multiboard series which include more than 50 innovations and make fiber laser developments more efficient.

Key features:

- Drives several optoelectronics elements independently or simultaneously :
 - 1 Butterfly laser diode in CW regime up to 1.5 Amp with very low noise floor
 - 1 Butterfly laser diode for pulsing 1 nsec to CW with internal pulse duration and repetition rate adjustments
 - 2 Photodiodes to measure CW optical power with high precision
 - 1 Photodiode to measure the repetition rate of an optical signal
 - 2 Photodiodes to measure the average optical power of a pulsed signal
 - 1 Photodiode to measure the optical back reflected power in CW or pulse regime
 - 20 different alarms with potential interlock effects
- Special pump pulse regimes for low repetition rate or pulse-on-demand configurations
- Special interconnections with ALPhANOV Multiboard Series to allow complete integration of complex fiber laser architectures (MOPA, Modelocked, Q-Switch, EOM modulation etc.)
- Smart control (USB interface to drive simultaneously several modules from AERODIODE laser electronics series)

Technical Specifications

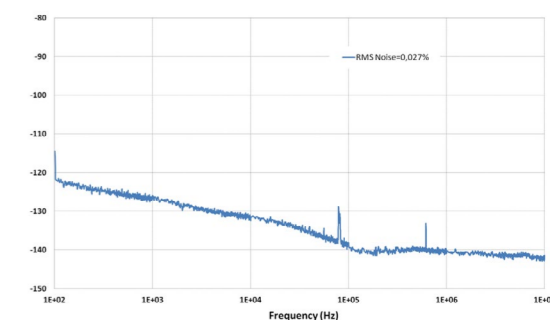
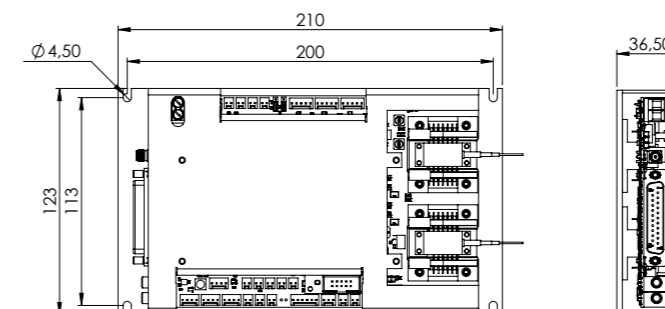


Electronic

	Min	Max	
Laser diode 1 (CW)	Current	0	1500 mA
	Noise level (laser diode dependant)	-	0.03 % rms
	Adjustement precision	-	0.05 mA
	Current stability	-	0.01 %
	T° stability	-	10 mK
Laser diode 2 (CW or pulsed)	Current (pulse regime)	0	1500 mA
	Current (CW regime)	0	500 mA
	Pulse duration	1 nsec	CW
	Pulse jitter	-	10 psec
	Pulse repetition rate	0	250 MHz
Alarms/interlock response time	-	2 µsec	

Subject to change without notice

Mechanical



RMS noise = 0.027% (100 Hz to 10 MHz)

Aero ODE

Institut d'optique d'Aquitaine

Rue François Mitterrand

33400 Talence - France

Ph. +33 (0)6 27 69 41 52

www.aerodiode.com