

PIXEA

Picosecond compact laser source

Excitation - pump - Seed



The PIXEA is a high-performance, versatile picosecond laser engineered for demanding applications, featuring a gain-switched laser diode and intuitive software control. This advanced system generates ultrashort laser pulses as brief as 70 ps, with a repetition rate tunable between 5 kHz and 40MHz (100MHz max on demand)

Designed for excitation, pump, and seed laser applications, the PIXEA offers exceptional time jitter performance in the picosecond range, ensuring unparalleled precision. Its control GUI is able to tune the repetition rate from 5 kHz to 40 MHz.

Its superior stability and reliability make it an ideal solution for applications requiring high temporal resolution and performance consistency.

Features

- Variable from 5 kHz to 40 MHz
- Max 100MHz On demand
- Typical 70 ps pulse width
- Master/Slave operation
- Minimize pulse tails
- USB remote control
- User friendly graphical Interface
- DLL libraries: C++

Applications

- QKD Laser source
- Time resolved spectroscopy
- Photodetector characterization
- Time Correlated Single Photon Counting {TCSPC}
- Seed laser & pump laser
- Semiconductors inspection
- LIDAR and range finder
- Optical fiber sensing

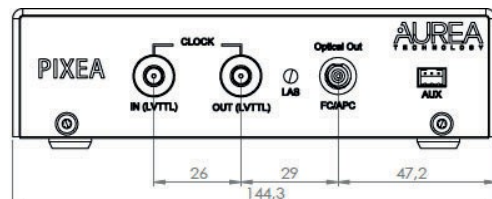
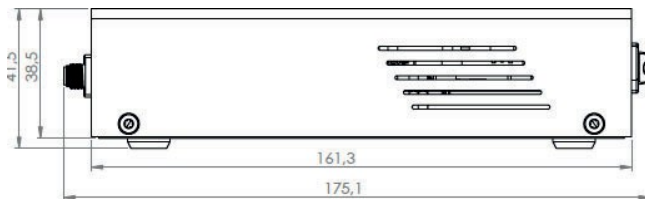
Options

- TTL to NIM converter
- Narrow linewidth
- UART remote control

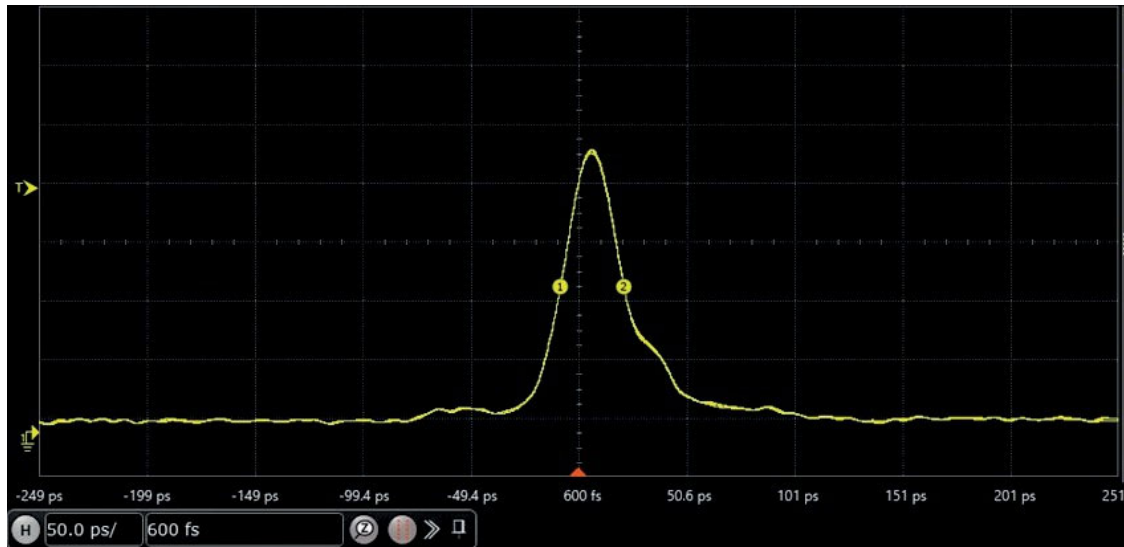
LASER SPECIFICATIONS

OPTICAL SPECIFICATION	
Center wavelength	1550 or 1310 nm +/-1 nm
Pulse Rep. Rate	5 kHz to 40 MHz (100MHz On demand)
Pulse Width	<100 ps
Peak Power Typical	10 mW
Optical output options	PMF Fiber coupled (SMF fiber on demand) - FC/APC Connector
ELECTRICAL SPECIFICATION	
External trigger repetition rate	Variable from 5 kHz to 40 MHz (100MHz On demand)
Internal trigger repetition rate	Variable from 5 kHz to 40 MHz (100MHz On demand)
Trigger output	SMA (LVTTTL signal)
Trigger input	SMA (LVTTTL signal)
Power supply	+5 VDC - Power supply provided
Security	Interlock
External PC connection	USB port connections
Dedicated software	GUI with DLL and Exemple for C++
MECHANICAL	
Dimensions	144 x 161 x 38 mm3
Weigth	< 1 kg
Cooling system	Fan cooling
Operating temperature	15°C - 35°C
Storage temperature	0°C - +65°C
Warm-up time	< 20 minutes

MECHANICAL DRAWING (All dimensions in mm)

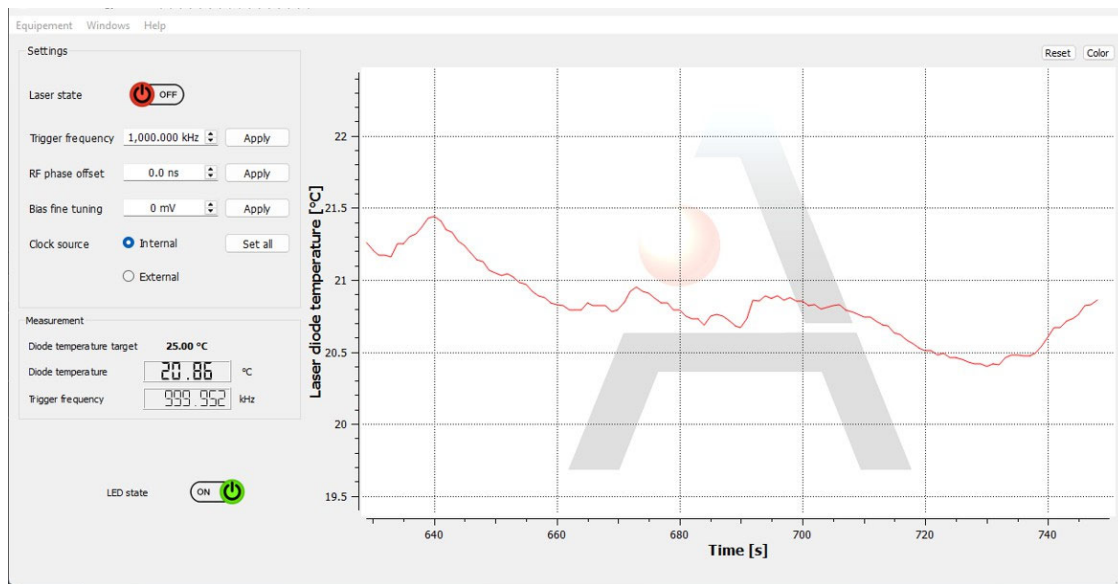


PERFORMANCES



Typical pulse width @ 1550nm , 10.3mW output fiber@40 MHz repetition rate

GRAPHICAL USER INTERFACE



ORDERING

PIXEA Picosecond laser source

Please contact us at sales@aureatechnology.com for custom solutions and options

INFOMATION

- +5V, 12W, AC/DC power adapter, with AC power cord
- Standard rack 19" 1U compatible

WARRANTY

Any warranty is void if the Product has been damaged, disassembled, modified, misused, used in applications which exceed the Product specifications or rating, neglected, improperly installed or otherwise abused or is used in hazardous activities

DISCLAIMER

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