

PIXEA

Picosecond compact laser source

Excitation source - Seed laser



The PIXEA is a high performance and versatile picosecond laser based on gain-switched laser diode managed by its user-friendly software.

Designed for the most demanding applications, the PIXEA generates ultrashort laser pulses of 50 ps. Its control GUI is able to tune the repetition rate from 5 kHz to 100 MHz. It is also easily triggerable by an external source and remotely controlled by a PC via its USB port.

Features

- Variable from 5kHz to 100 MHz
- pJ energy pulse
- 50 ps pulse width
- Master/Slave operation
- Minimize pulse tails
- USB & UART remote control
- User friendly graphical interface
- DLL libraries :Python, C++

Applications

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

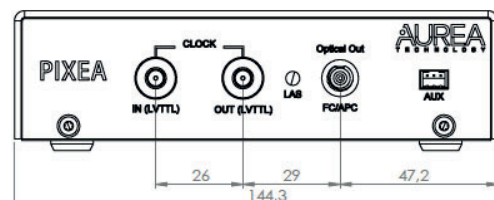
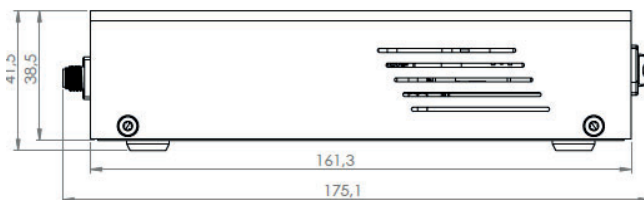
Options

- TTL to NIM converter
- Narrow linewidth

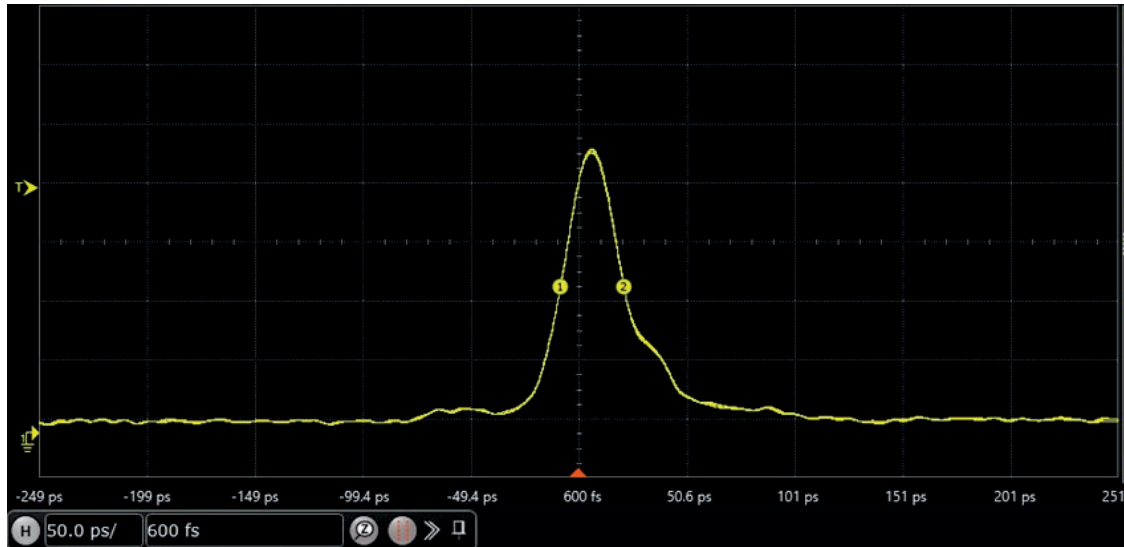
LASER SPECIFICATIONS

| OPTICAL SPECIFICATION | |
|----------------------------------|--|
| Center wavelength | 1550 nm +/-1 nm |
| Pulse Rep. Rate | 5kHz to 100 MHz |
| Pulse Width | 50 ps |
| Peak Power | 10 mW (50 or 80 mW in option) |
| Optical output options | Fiber coupled (SMF or PMF) - FC/PC or FC/APC Connector |
| ELECTRICAL SPECIFICATION | |
| External trigger repetition rate | Variable from 5 kHz to 100 MHz |
| Internal trigger repetition rate | Variable from 5 kHz to 100 MHz |
| Trigger output | SMA (LVTTTL signal) |
| Trigger input | SMA (LVTTTL signal) |
| Power supply | +5 VDC - Power supply provided |
| Security | Interlock |
| External PC connection | USB port and UART port connections |
| Dedicated software | GUI with DLL and Exemple for Python, C++, VBS |
| MECHANICAL | |
| Dimensions | 143 x 161 x 38 mm ³ |
| Weigth | < 1 kg |
| Cooling system | Fan cooling |
| Operating temperature | 15°C - 35°C |
| Storage temperature | - 20°C - +65°C |
| Warm-up time | < 20 minutes |

MECHANICAL DRAWING (All dimensions in mm)

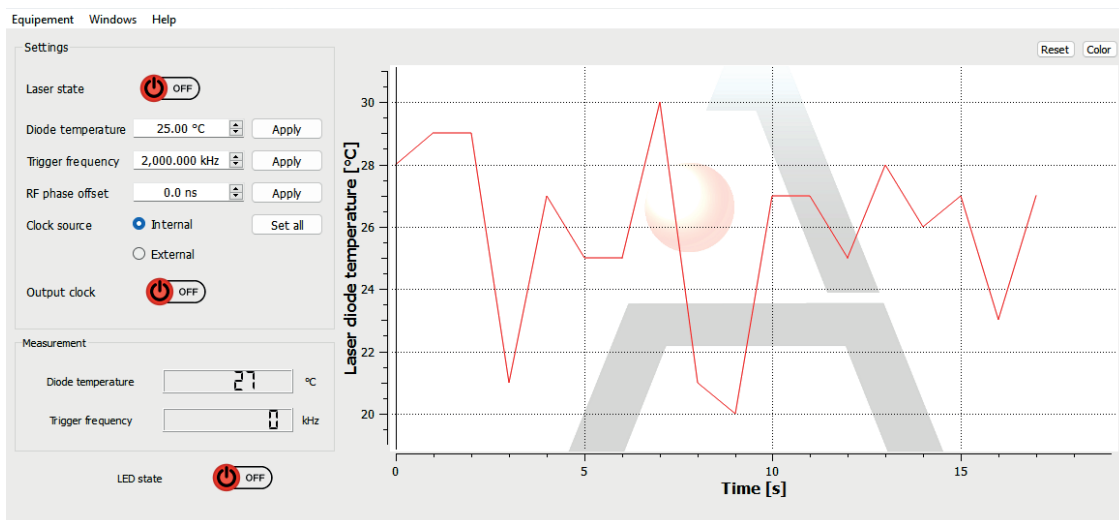


PERFORMANCES



Typical pulse width @ 1550nm , 8mW output fiber, 50 MHz repetition rate

GRAPHICAL USER INTERFACE



ORDERING INFORMATION

XXXX 1310 : 1310 nm Wavelength
 1550 : 1550 nm Wavelength
YYY FPC : FC/PC connector
 APC : FC/APC connector
ZZ 40 : 40 MHz max rep.rate
 100 : 100 MHz max rep.rate

PIXEA_XXXX_YY_ZZ

Please contact us for custom solutions & options



NOTE

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