

The C430 is an ultra-short pulsed Laser driver that can generate pulses from 100ps to 200ns (laser dependent) with a repetition rate of up to 3MHz.

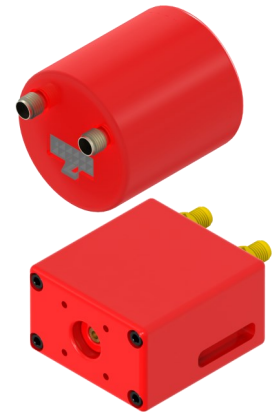
Peak currents of 500mA (5V compliance) or 300mA (10V) compliance can be achieved. This device can be configured and controlled via SCPI over USB or RS485.

This driver can be customized with a variety of compatible laser diodes with optimization for their performance. Over-current and over-temperature protection are provided to prevent damage to the laser.

This driver can be LVTTTL externally triggered and two options are available for the synchronized output pulse, LVTTTL over SMA or LVDS via the multi-purpose connector.

A configurable delay is available for the synchronized output pulse from 0 to 1us in 100ns steps.

Collimating optics are integrated into the compact packaging allowing this instrument to be used for various spectroscopic and OEM applications.



Specification

| | |
|--|---|
| Features | Software-configurable laser diode modulation |
| Supported wavelengths and applications | <ul style="list-style-type: none"> -405nm (fluorescence spectroscopy, Raman spectroscopy and photoluminescence). -520nm (fluorescence excitation and absorption spectroscopy). -660nm (biophotonics and optical sensing) -808nm (pump-probe spectroscopy and as a pump source for solid-state lasers) -1064nm (pumping nonlinear optics or pumping light sources in quantum tech, defense and security, optical comms) -1550nm (fiber optic sensing, gas absorption spectroscopy and brain blood flow monitoring) |
| Pulse width | 100ps to 200ns |
| Pulse width resolution | 1ps (100ps to 5ns), 318ps (5ns to 200ns) |
| Pulse repetition | up to 3MHz |
| Safety features | Overtemperature and overcurrent safety laser shutdown |
| Internal trigger | Internal trigger |
| External trigger | LVTTTL for pulses up to 200ns. |
| Peak laser current | 500mA (up to 5V compliance) or 300mA(up to 10V compliance) |
| Power supply | 5V and 15V |
| Communication interface | SCPI (Standard Commands for Programmable Instruments) over USB and RS485 for configuration |
| Control | <p>GUI available for USB configuration. Configuration parameters include:</p> <ul style="list-style-type: none"> - Current amplitude (0.65mA to 300mA) - Pulse width (100ps to 200ns) - Pulse repetition frequency - Synchronized pulse delay |
| Synchronization output | LVTTTL and LVDS outputs available with programmable delay of 450ps - 950ps (1ps resolution) for Time-of-flight applications and an additional 0 to 1us delay feature in 100ns steps for fluorescence spectroscopy. |

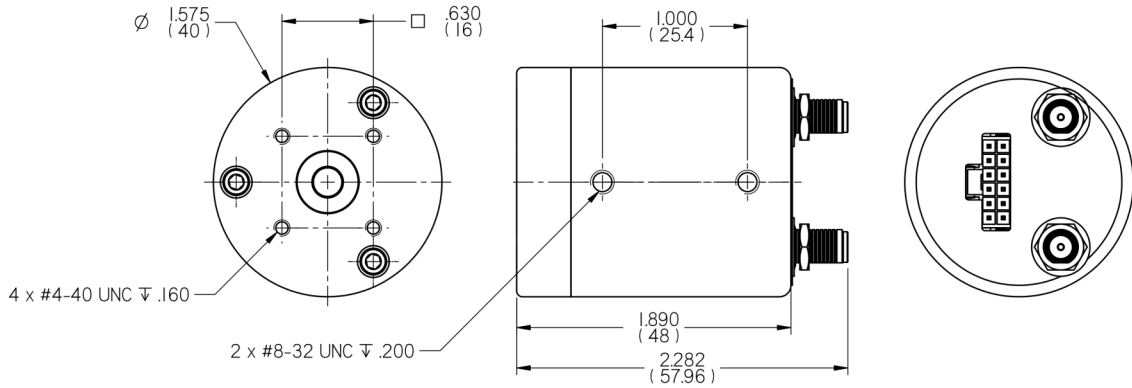
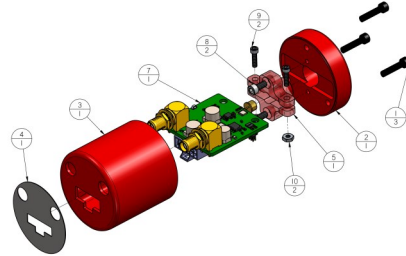
Best suited for any TO Can laser diodes, for example:

THORLABS LIGHTAVENUE **OSRAM** **USHIO**
BY DEBBAS

Mechanical Information

Compact Ultra-short Diode Laser C430, housing type 1

| Item Number | Description | Quantity |
|-------------|---------------------------------|----------|
| 1 | 4-40 x 0p5 in SHCS | 3 |
| 2 | C430 Pulse Driver Port - Top | 1 |
| 3 | C430 Pulse Driver Port - Bottom | 1 |
| 4 | C430 Label R1 | 1 |
| 5 | C430 TO 46 Can holder R1 | 1 |
| 7 | C430 R1 07022023 | 1 |
| 8 | 4-40 0p25 in SHCS | 2 |
| 9 | 2-56 x 0p313 in SHCS | 2 |
| 10 | 2-56 Nut | 2 |



Compact Ultra-short Diode Laser C430, housing type 2

| Item Number | Description | Quantity |
|-------------|--|----------|
| 1 | 4-40 x 0p5 in SHCS | 4 |
| 2 | C430 Pulse Driver Port - Rectangular - Top R1 | 1 |
| 3 | C430 Pulse Driver Port - Rectangular - Bottom R1 | 1 |
| 4 | C430 Pulse Driver Port - Rectangular - Label R1 | 1 |
| 5 | TO 46 Can holder R1 | 1 |
| 7 | C430 R1 07022023 | 1 |
| 8 | 4-40 0p25 in SHCS | 2 |
| 9 | 2-56 x 0p313 in SHCS | 2 |
| 10 | 2-56 Nut | 2 |

