

# AMPX-PW-LP-IR- 1030/1040/1064 PULSED SEED LASER

## APPLICATIONS

SCIENCE

SENSING

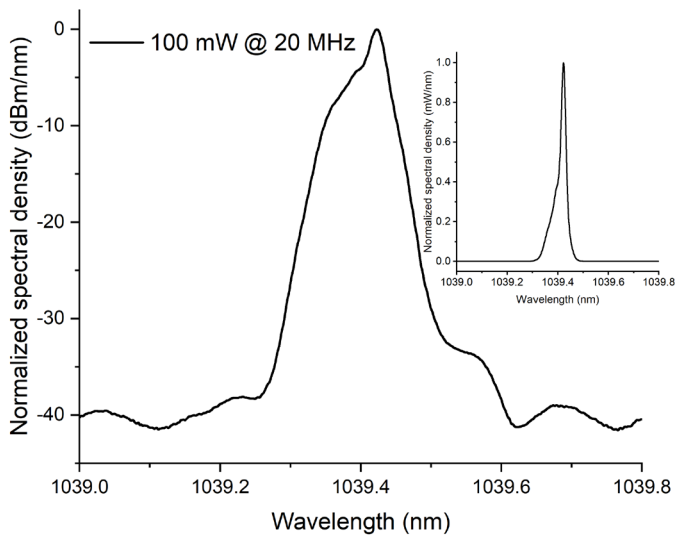
FREQUENCY-DOUBLING

FIBER LASER SEEDING

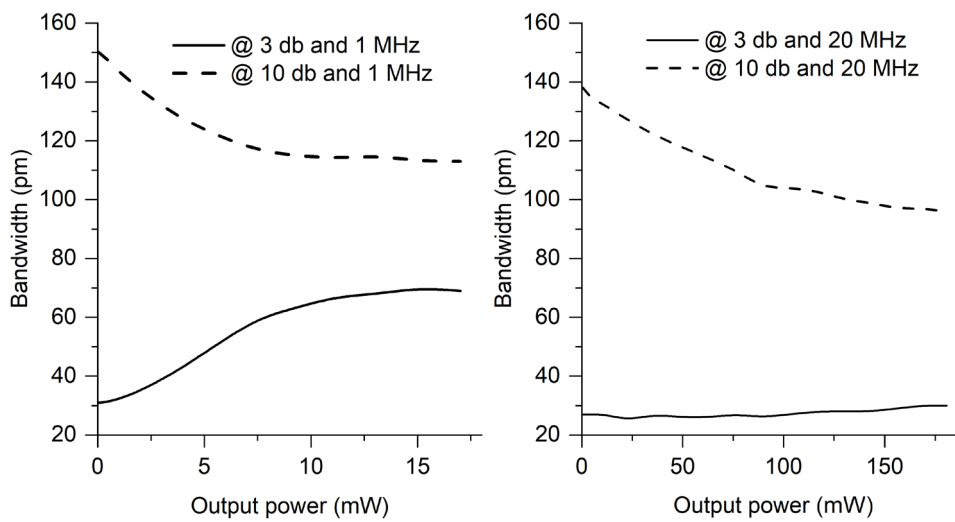


## KEY FEATURES

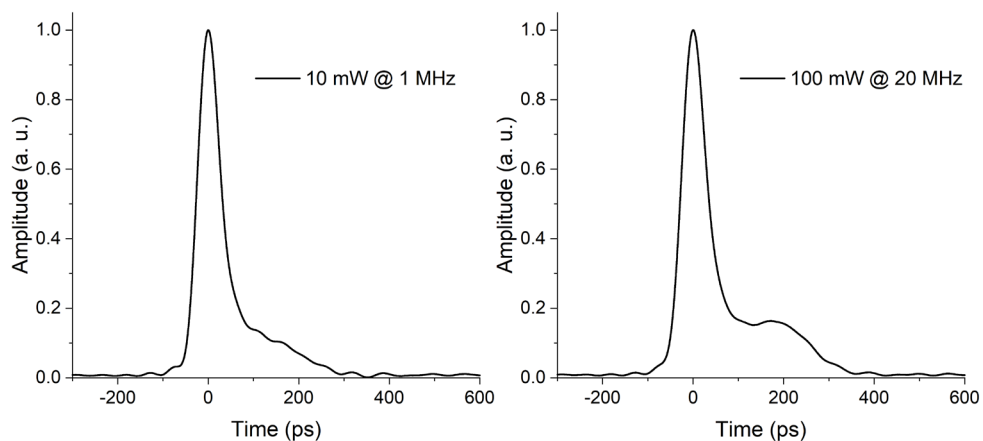
- 1030, 1040 and 1064 nm wavelengths
- High output power up to 150 mW
- ~20 or 50 ps pulse duration
- Single-mode beam quality
- Linear polarization
- Narrow linewidth
- Computer controllable via USB



Example of the laser emission spectrum @ 20 MHz



Dependence of the spectral width of the laser emission line for 1 (left) and 20 (right) MHz (laser with central wavelength equal to 1040 nm).



Pulse shape example for 1 (left) and 20 (right) MHz (laser with central wavelength equal to 1040 nm).

## OPTICAL OUTPUT

| PARAMETER                        | UNIT | VALUE                       | COMMENTS                 |
|----------------------------------|------|-----------------------------|--------------------------|
| Central wavelength               | nm   | 1064±2 or 1040±2 or 1030 ±2 | Fixed                    |
| Pulse repetition rate            | MHz  | 1 or 20                     | Controlled by the user   |
| Maximum average power @ 1 MHz    | mW   | ≥ 10                        | Controlled by the user*  |
| Maximum average power @ 20 MHz   | mW   | ≥ 150                       | Controlled by the user   |
| Pulse duration @ 3 dB (FWHM)     | ps   | 60 ± 20 or 20 ± 5           | Fixed                    |
| Spectral bandwidth @ 3 dB (FWHM) | pm   | ≤ 100                       | Depends on output power* |
| Polarization type                |      | Linear                      |                          |
| PER                              | dB   | ≥ 15                        |                          |
| Output fiber                     |      | PM980                       | PM1060L on request       |
| Laser class                      |      | 3                           |                          |

\* On request, the power can be higher than 10 mW, but in this case the FWHM can be more than 100 pm.

## MECHANICAL

| PARAMETER        | UNIT | VALUE           | COMMENTS         |
|------------------|------|-----------------|------------------|
| Laser dimensions | mm   | 470 × 270 × 123 |                  |
| Laser weight     | kg   | 12              |                  |
| Cooling          |      |                 | Passive or water |

## ELECTRICAL POWER SUPPLY

| PARAMETER            | UNIT | VALUE   | COMMENTS            |
|----------------------|------|---------|---------------------|
| Supply voltage       | VDC  | 12...24 | AC-adapter included |
| Power supply current | A    | ≤ 0.5   |                     |
| Power consumption    | W    | ≤ 12    |                     |

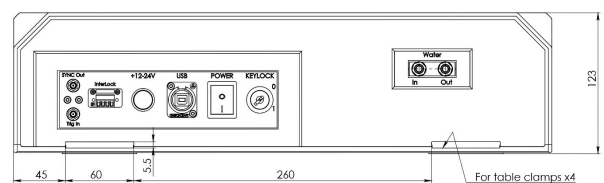
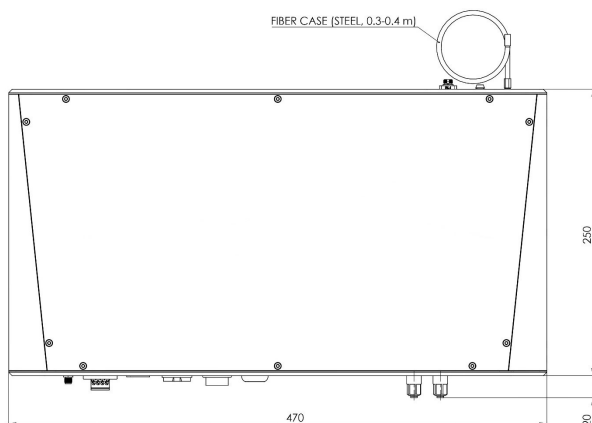
## CONTROL

| Parameter                    | Comments                                       |
|------------------------------|------------------------------------------------|
| External trigger/sync output | 1 VDC @ 50 Ω                                   |
| External trigger input       | 3.3 VDC @ 50 Ω                                 |
| Control interface            | USB                                            |
| Other                        | Key switch function, laser emitting indication |

## CONNECTORS

| Connector                 | Type                                                                                      |
|---------------------------|-------------------------------------------------------------------------------------------|
| Power "+12 -24 V"         | T3359-550 Amphenol (Circular 5-pin female, pin 2 GND, pin 5 VCC)                          |
| External trigger output   | SMA Jack (73251 - 1350 Molex)                                                             |
| External trigger input    | SMA Jack (73251 - 1350 Molex)                                                             |
| Interface connector "USB" | USB "B"                                                                                   |
| Interlock                 | 1829361-1803594 Phoenix contact (pins 1,2 – Interlock Output; pins 3,4 – Interlock Input) |

## DIMENSIONS



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