PRODUCT SHEET

NEW

MERLIN-1030

Ultra-compact, air-cooled femtosecond laser oscillator with adjustable dispersion pre-compensation and fast power control



KEY SPECIFICATIONS

Center Wavelength	[nm]	1030
Average Output Power	[W]	>1.0
Pulse Energy	[nJ]	>20
Pulse Duration (sech^2)	[fs]	<200
Beam Quality Factor, M^2	[1]	<1.2
Repetition Rate	[MHz]	50
Power Control	[%]	0-100
Modulation Bandwidth (−3 dB)	[MHz]	1
GDD Pre-Compensation	[fs^2]	x_0 ± 30'000

[1] The center value x_0 can be specified by the customer at the time of order.

PERFORMANCE MEETS SIMPLICITY

The MERLIN-1030 delivers more than 1 W at 1030 nm, with pulse energies above 20 nJ and pulse durations below 200 fs - all in an ultra-compact, air-cooled design.

Adjustable dispersion pre-compensation helps compensate for downstream optics, while variable output power lets you tailor the excitation level to your application.

Designed for continuous 24/7 operation and powered by a single 20 V USB-C PD supply, this all-in-one oscillator simplifies integration into compact instruments and laboratory setups.

OPTIONS

- Fiber-coupled output
- 515-nm version
- Single pulse picking
- Alternative repetition rates from 50 MHz to 1 GHz
- Higher output power

APPLICATONS

- Two-Photon (Fluorescence) Microscopy
- Second-Harmonic Generation (SHG) Imaging
- Multiphoton Polymerization / 3D Microfabrication
- Multiphoton Microendoscopy
- Laser-Assisted Cell Permeabilization & Optical Transfection

KEY FEATURES

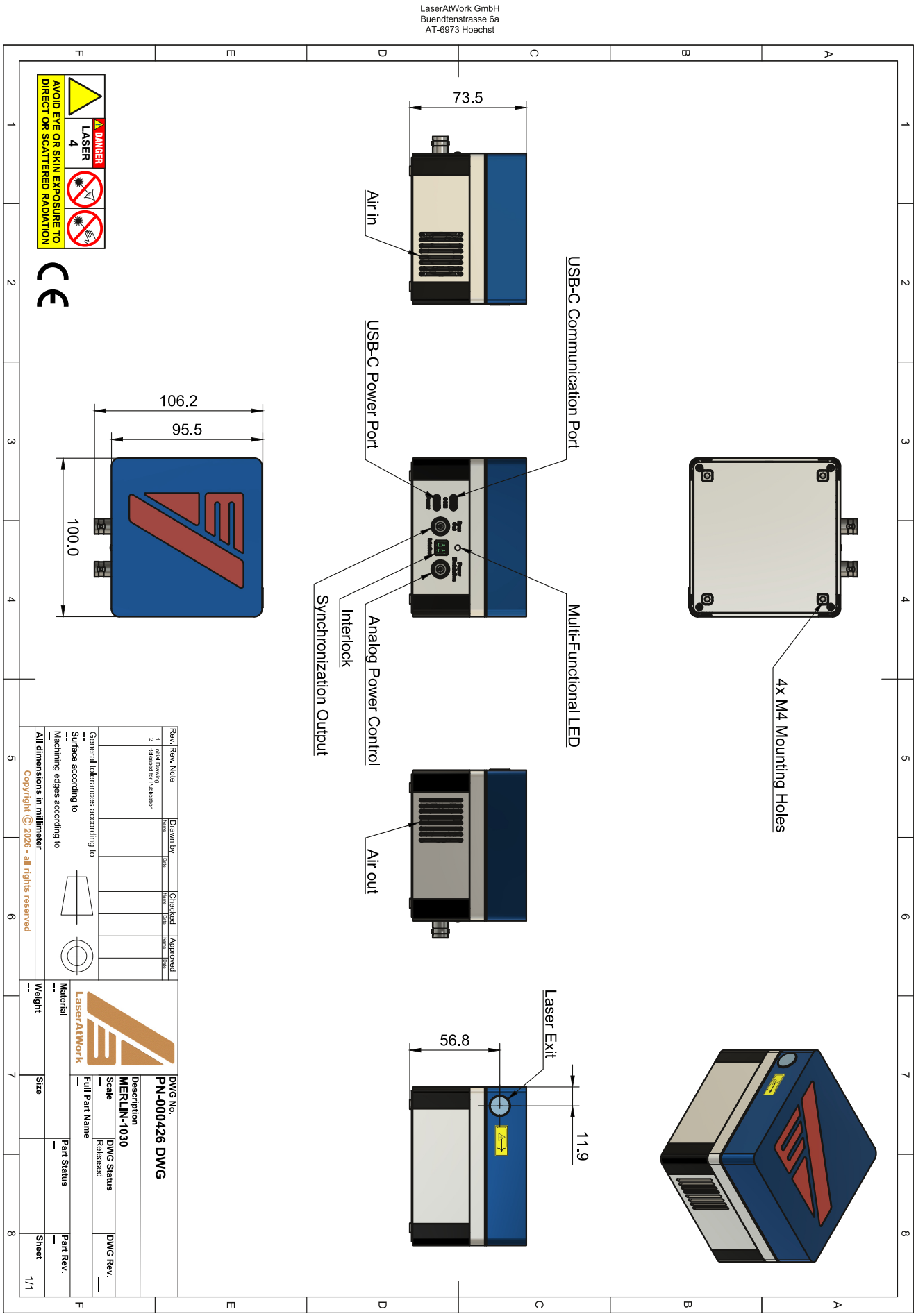
- Air-cooled, all-in-one design
- Adjustable GDD pre-compensation
- Variable output power
- Compact footprint: 106 x 100 x 74 mm^3
- Designed for continuous 24/7 operation
- Interfaces:
  - USB-C: communication and power supply
  - Analog power-control input (BNC)
  - SYNC output (BNC)
  - 2-pin interlock terminal
- Powered via 20V USB-C PD
- No installation required
- Control software stored in onboard memory

LaserAtWork GmbH
We focus on your success!

Phone: +43 (0)660 655 5875
eMail: info@laseratwork.com
Web: www.laseratwork.com

Buendtenstrasse 6a
AT-6973 Hoechst
Austria

PRODUCT SHEET



LaserAtWork GmbH
We focus on your success!

Phone: +43 (0)660 655 5875
eMail: info@laseratwork.com
Web: www.laseratwork.com

Buendtenstrasse 6a
AT-6973 Hoechst
Austria