LTB Lasertechnik Berlin GmbH

established in 1990, is an innovative developer and manufacturer of UV short-pulse lasers, different spectrometers and laser-based measuring techniques, marketing its products worldwide.

We provide you:

- Laser sources for the industrial analytics and medical diagnostics
- Highest-resolution spectrometers for the development and production of lasers, esp. diode lasers and laser diodes, and for the laser lithography
- Laser-based measuring techniques for the spectroscopic material analysis, process analytics and medical diagnostics (LIF, LIBS and Raman)

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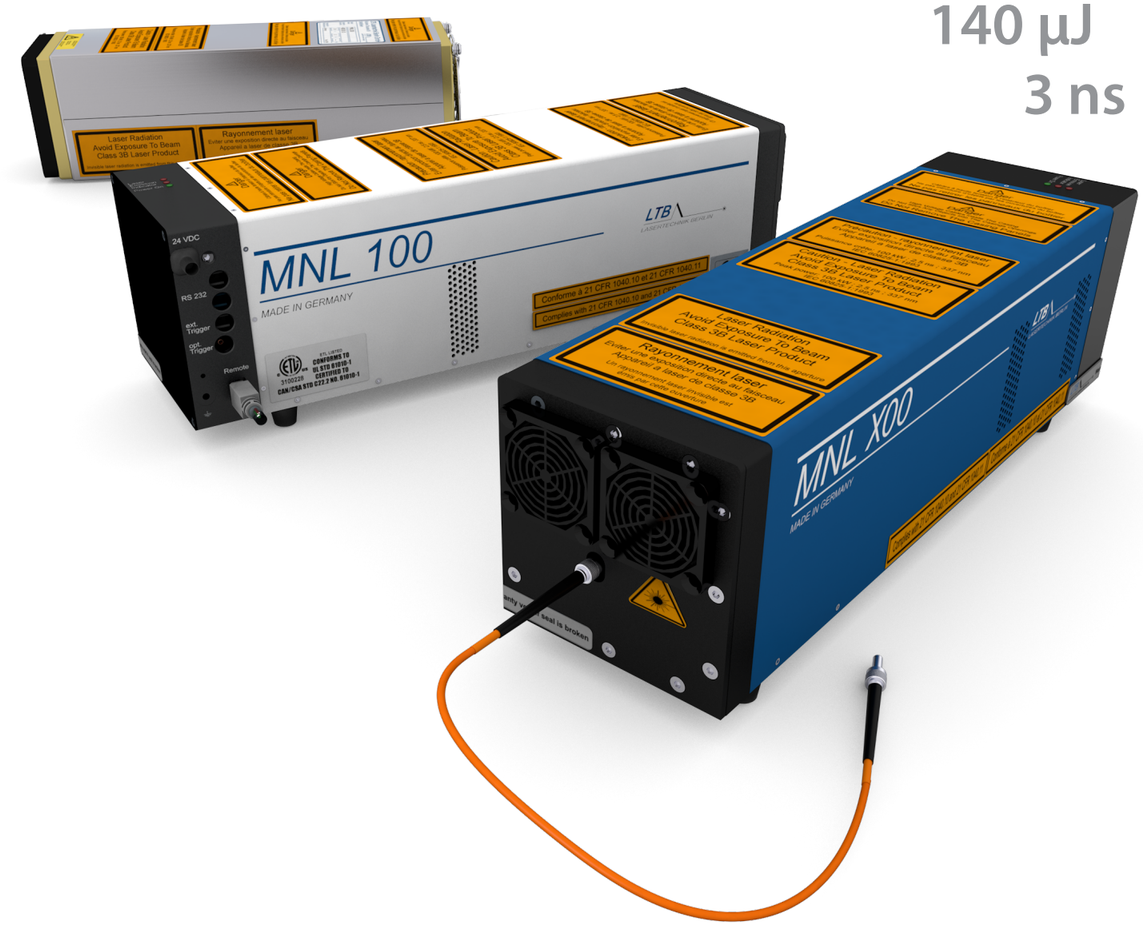
State: 1.6.2022

LTB LASERTECHNIK BERLIN

LIGHT. PRECISION. ANALYTICS.

337 nm
80 Hz
140 µJ
3 ns



MALDI-TOF - TR-FRET - LIF-spectroscopy - Micro-LIBS

Nitrogen Lasers

for industrial demands in the ns-range

LASERS

MNL X00
Industrial Nitrogen Laser

MNL 100
Mini-Nitrogen Laser

MNL 300
Low cost Nitrogen Laser

µ-Joule Meter
PEM 250 / 500

Wavelength	337.1 nm	337.1 nm	337.1 nm	500 Hz	Max. repetition rate
Pulse energy max.	140 µJ	140 µJ	85 µJ	0.25 - 250 µJ / 0.25 - 500 µJ	Measuring ranges
Pulse width (FWHM)	3 ns	3 ns	3 ns	3 ps - 50 µs	Pulse width
Peak power	47 kW	47 kW	28 kW	30 nJ	Detection threshold
Repetition rate max.	60 Hz	60 Hz	80 Hz	10 MW / cm²	Max. peak density
Pulse energy @ max. rep. rate	110 µJ	110 µJ	75 µJ	0.19 - 1.2 µm	Spectral sensitivity
Average power max.	8 mW	8 mW	6 mW	Ø 8 mm	Sensor area
Stability	2 %	2 %	2 %	355 + 100 nm	Calibration wavelength**
Warranty	long life laser, customer agreement required	60 million / 2 years	60 million / 2 years	< 1 %*	Linearity
				± 4 %**	Accuracy
				14 bit	Dynamic range
Dimensions	321 x 95 x 95 mm³	321 x 95 x 95 mm³	300 x 87 x 87 mm³	1 year	Warranty
				100 x 27 x 14.5 mm³	Dimensions
Weight	3.5 kg	3.5 kg	2.8 kg	0.2 kg	Weight

* for the calibration wavelength range
** customization possible

MNL series
Our nitrogen lasers - for highest demands on efficiency and reliability

The ideal OEM UV-light source for applications in the field of industrial detection methods and scientific research

- Long operational life through a sealed discharge cartridge in metal-ceramic technology
- High precision through a directly switching solid state power switch
- Warranty
  400 million pulses / 4 years
- Integrated laser controller for easy incorporation in different applications
- Patented and certified
  CE,ETL-INTERTEK
  (UL,CSA,VDE,Semco)
  ROHS, FDA

Options:
Energy monitor, beam attenuator unit, fiber coupling and fibers

The ideal OEM UV-light source for applications in the field of industrial detection methods and scientific research

- Long operational life through a sealed discharge cartridge in metal-ceramic technology
- High precision through a directly switching solid state power switch
- Warranty
  60 million pulses / 2 years
- Integrated laser controller for easy incorporation in different applications
- Patented and certified
  CE,ETL-INTERTEK
  (UL,CSA,VDE,Semco)
  ROHS, FDA

Options:
Energy monitor, beam attenuator unit, fiber coupling and fibers

Low-cost UV-laser, rugged and easy to use, for various applications

- Long operational life through a sealed discharge cartridge in metal-ceramic technology
- High precision through a directly switching solid state power switch
- Warranty
  60 million pulses / 2 years
- Maintenance-free
- High quality alternative to all other low-cost UV-lasers
- Only an external trigger signal required to run the laser
- Patented and certified
  CE, ETL* (ANSI/UL 61010-1, CAN/CSA C22.2#61010-1), FDA

Options:
Fiber coupling + fibers

Very compact energy measurement module for pulsed lasers

- USB-powered
- Pyroelectrical sensor
- High sensitivity (30 nJ)
- High dynamics 14 bit
- Several modules can be connected to one PC
- Measurement via light fibers or free beam
- Applied in on-line monitoring in laser-induced industrial analytics and medical diagnostics, development of systems and methods, simultaneous monitoring of processes, system calibration and service

Options:
Software development kit (SDK) based on our DLL

Applications

- MALDI-TOF mass spectroscopy
- MALDI Imaging
- Bioreaders
- Ion trap mass spectroscopy
- LIF spectroscopy
- Time-resolved spectroscopy
- Micro-LIBS
- Laser ablation
- Microstructuring
- Dissecting cells under the microscope
- Laser acoustics
- Detector calibration
- Pump source for dye lasers
- Amplification of ultra-short laser pulses
- Technological applications such as laser induced bonding, hardening and cleaning