

- **Improve efficiency**
- **Save on your production cost**
- **Shorten time in quality control and production**
- **Clear laser line profile**
with 12 Bit dynamic camera
- **Measures all laser lines**
up to 1000 mm length and as small as 10 μm
- **Evaluates homogenized laser lines**
- **TCP/IP remote control**
Control your laser system from your desk
- **Save time**
Automatic scanning of the laser line
- **Quality control**
Fast measurement and evaluation
with test report

Everything can be improved • We give you a tool to be faster



Our CW scan systems consist of beamlux II CW scan software, our new industry standard ML3743 camera with high resolution and high dynamic, ML8010 motor controller and at least one linear stage.

Optional high power near field lenses are used to magnify laser lines with widths as small as 10 µm for high precision evaluation.

The camera is automatically moved along the laser line. Each step one frame is acquired. The beamlux II software combines all single frames to one panorama picture. This picture is evaluated with all features of our beamlux II software.

Additional motorized stages or cameras controlled by beamlux II CW scan extent the simple test system to a complex measurement tool for production, quality control and research. It is an approved tool in semi conductor industry.

It is our intention to offer our customer the best measurement device for the application. Complete scan systems can be provided by your specifications.

Specifications

Wavelength range	320 nm - 1100 nm
with optional UV-converter	10 nm - 320 nm
Line Size:	Width 10 µm - 5 mm
	Length up to 1000 mm

Linear stage	Near field objectives
with high accuracy	with high numerical aperture for high power laser
Length	1x
50 mm	2x
100 mm	5x
145 mm	10x
500 mm	20x
	40x
others on request	others on request

Stepper motor controller:

controllux ML8010 controls up to three 2-phase stepper motors manual and PC control motor current up to 1A.



camlux ML3743

CCD-Sensor	2/3"
Pixel #	1392 x 1040
Pixel size	6.45 x 6.45 µm
Array size	8.97 x 6.71 mm
Max. frame rate	14.8 fps
	60 fps with binning
Exposure time	20 µs - 1 s
Long-time exposure	up to 20 min
Binning	x2, x4, x8
S/N ratio	63 dB
Dynamic	12 bit
Full well capacity	18000 e ⁻



CE/UL certified

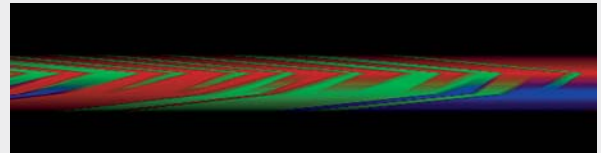
beamlux II CW scan software

beamlux II is provided with an optional window for easy acquisition of laser lines. The additional CW-scan window enables simple scanning of laser lines with highest resolution.

Complete evaluation of laser lines and automatic exposure control, background correction and floating average for highest accuracy is available.

The linear stage is controlled by ML8010 stepper motor controller.

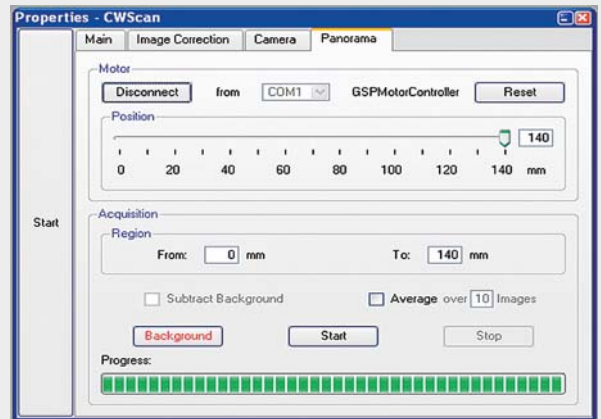
Special color tables for homogenized profiles



Beam analysis compliant to ISO

- beam width
- centroid
- cross sections
- eff. irradiation area
- edge steepness
- plateau uniformity
- comprehensive evaluation results and statistics
- various import and export data formats
- multi camera support
- TCP / IP remote control

Scan window for simple acquisition of the laser line



Evaluation results with path fail indication

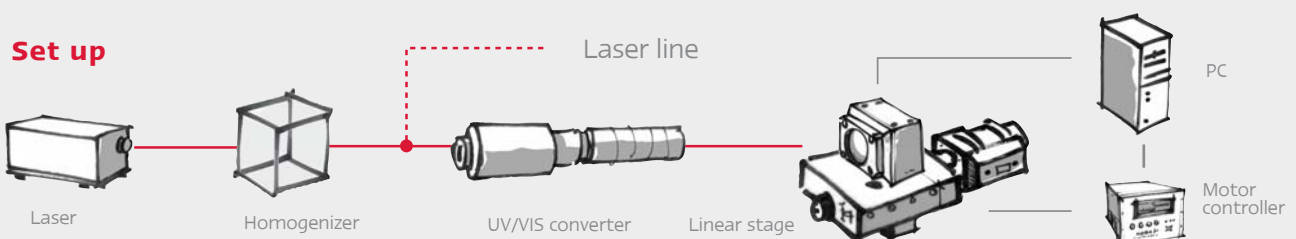
Name	Value
Beam center (second moment) (x)	7.907 mm
Beam center (second moment) (y)	6.135 mm
Beam width (second moment) (major axis)	15.73 mm
Beam width (second moment) (minor axis)	8.079 mm
Beam area (second moment)	99.79 mm ²
Beam ellipticity (second moment)	51.38 %
Beam excentricity (second moment)	85.79 %
Plateau intensity (2D ROI)	0 Cnts/μm ²
Plateau multimodal? (2D ROI)	no
Plateau uniformity (2D ROI)	5.62 %
Relative plateau uniformity (2D ROI)	6.19 %
Plateau edge steepness (2D ROI)	54.61 %
Plateau relative threshold (2D ROI)	0.00 %
Plateau evenness factor (threshold, 2D ROI)	3.53 %

Upgrade to beamscan II ML1300

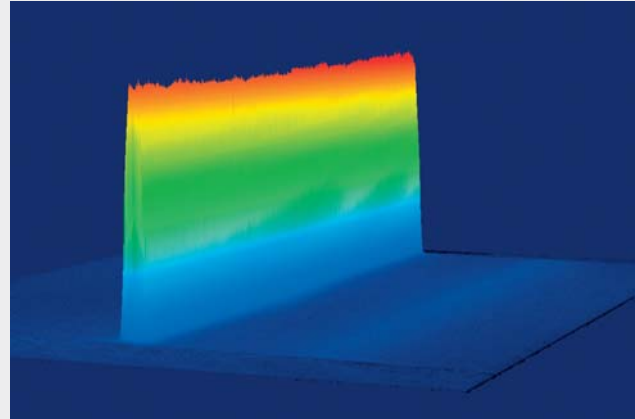
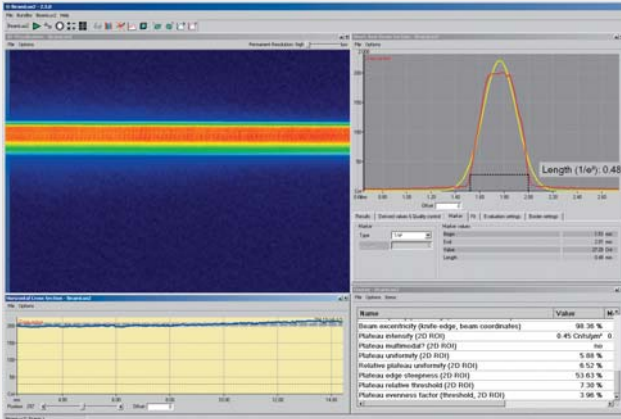
Our ML1300 beamscan II software is provided with advanced evaluation features.

The software is able to synchronize with pulsed lasers with our ML1630 laser synchronization device.

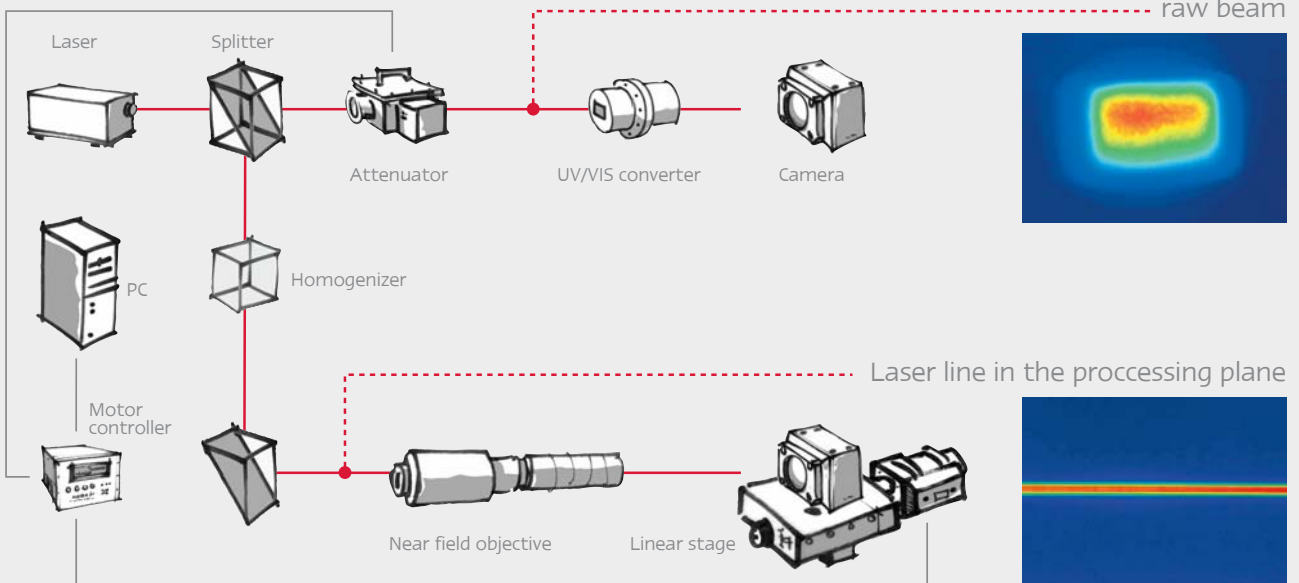
Set up



Homogenized laser line of a 532 nm 2nd order NdYag laser



Multi camera support



CW scan ML1204
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metrolux
info@metrolux.de
www.metrolux.de

Optische Messtechnik GmbH
Bertha-von-Suttner-Straße 5
37085 Göttingen, Germany
fon: +49 (0) 55 1 79 76 7 0
fax: +49 (0) 55 1 79 76 7 24

metrolux Optische Messtechnik GmbH
Bichlmairstrasse 15
82061 Neuried - Munich, Germany
fon: +49 (0) 89 7 45 296 89
fax: +49 (0) 89 7 45 296 95

metrolux analytics Inc.
PO Box 13282
Reno, NV 89505, USA
fon: 775 250 3379
fax: 734 370 6537