

Monochromatic Illuminator System

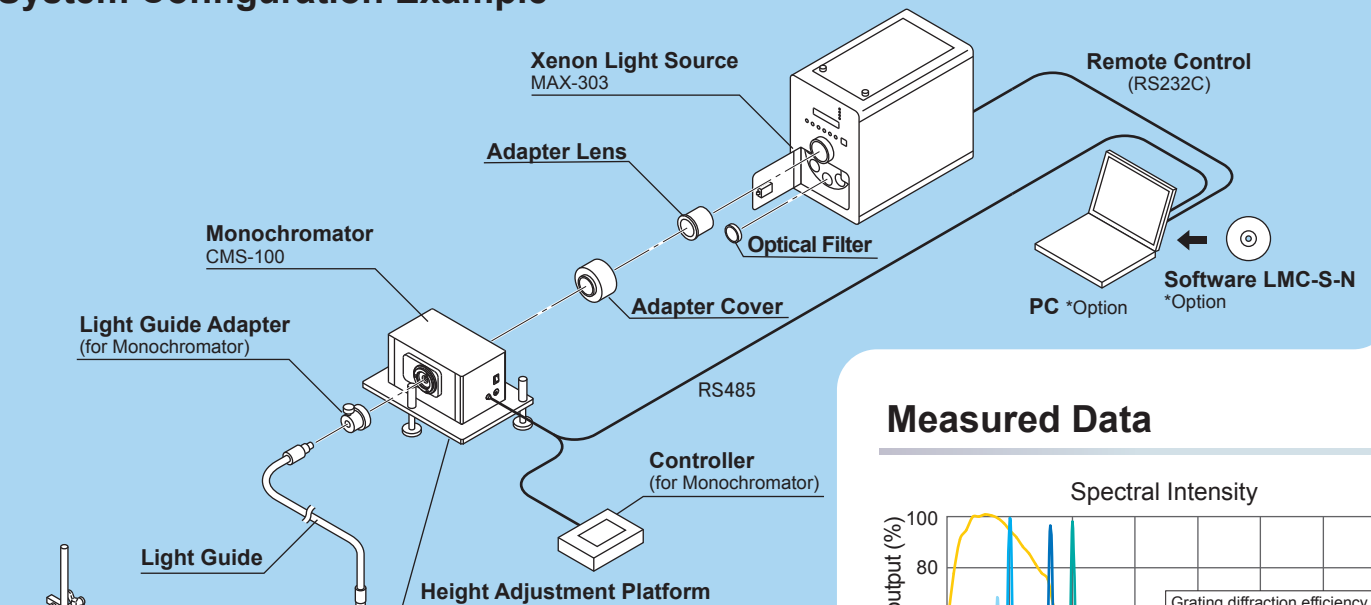
Tuning wavelength from UV to IR with xenon light source and monochromator

Features

- Monochromatic illumination by 0.1nm interval from 250nm to 900nm. *Depends on configurations
- Resolution: 2.6nm~
- Adjustable light intensity
- Uniform illumination by collimator lens
- Remote control software *Option



System Configuration Example

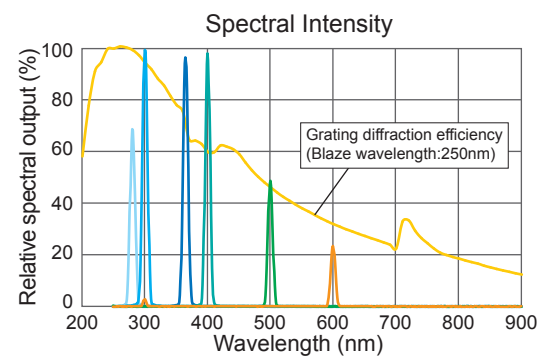


Light Intensity (Reference value)

Wavelength (nm)	Light intensity ($\mu\text{W}/\text{cm}^2$)	Mirror module
320	170	UV
380	236	
400	184	VIS
550	149	
700	73	
800	50	IR
900	118	

[Measurement condition]
 Illuminated area: 20×20mm
 Resolution: 8.6nm
 Grating: 400nm 1200g/mm

Measured Data



Applications

- CCD characterization
- Photoisomerization
- Photocatalytic reaction

System Components

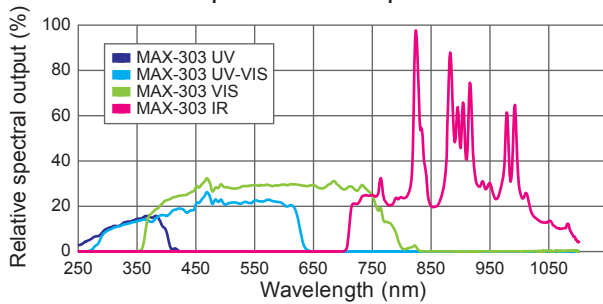
Xenon Light Source / MAX-303



Xenon light source 300W
Xenon spectrum is specified by a mirror module.

Type of mirror modules: UV / UV-VIS / VIS / IR

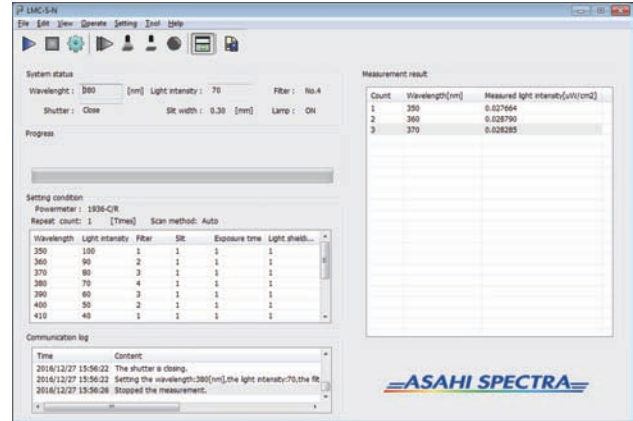
Spectrum Comparison



Software / LMC-S-N

LMC-S-N enables to control both of a light source and a monochromator at the same time.

Other options are individual control and creating the same level of light intensity in a certain wavelength range.



Operating condition
Windows7(32bit/64bit)/Windows8.1(32bit/64bit)/Windows10(64bit)

Monochromator / CMS-100



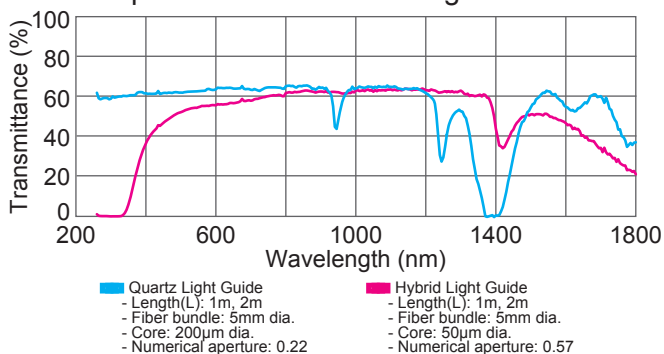
F-number	F/2.8
Reciprocal linear dispersion	8.3nm/mm (at 550nm)
Resolution	1) 2.6nm 2) 4.3nm 3) 8.6nm *It depends on the slit width. (Calculated value at 546.1nm)
Slit	W x H 1) 0.3 x 3.0mm 2) 0.5 x 3.0mm 3) 1.0 x 3.0mm *It can be selected automatically by controller.

Light Guide



The illuminating light from the MAX-303 is delivered to the point of use by the light guide efficiently.

Spectral Performance - Light Guide



- Quartz Light Guide**
 - Length(L): 1m, 2m
 - Fiber bundle: 5mm dia.
 - Core: 200µm dia.
 - Numerical aperture: 0.22
- Hybrid Light Guide**
 - Length(L): 1m, 2m
 - Fiber bundle: 5mm dia.
 - Core: 50µm dia.
 - Numerical aperture: 0.57

Collimator Lens



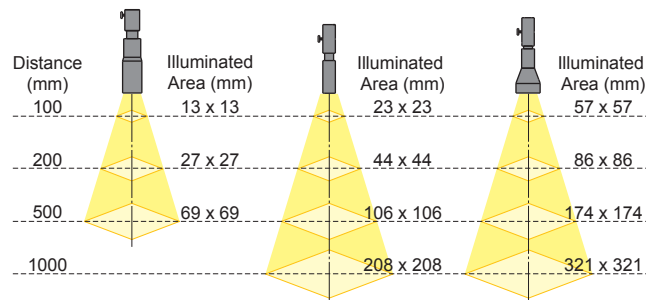
Collimator lens reduces the divergence of light from the light guide and provide uniform light output to a sample. Focus is adjustable in each working distance.

x0.5 Type
RLQL80-05

x1.0 (STD) Type
RLQL80-1

x2.0 Type
RLQL80-2

Size: 43mm dia. x 245mm 28mm dia. x 192mm 55mm dia. x 217mm
Material: Quartz Quartz Quartz



*Product specifications are subject to change without notice.