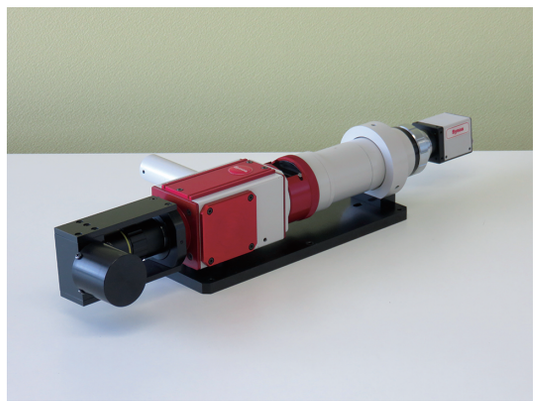
M-Scope type H NFP MEASUREMENT OPTICS FOR HIGH POWER LASER BEAM

Optical beam profile measurement optics, customized especially for high power laser.



【Product overview】

M-Scope type H is NFP measurement optics that is optimized especially for optical beam profile measurement of high power laser.

Approximately 5% of the optical beam emitted from sample is reflected by beam sampler. Reflected beam is introduced to imaging detector through NFP optics. By this way, beam profile of high power laser is analyzed precisely. Furthermore, by moving optics in focusing direction in combination with stage system, it is also possible to measure the change of emitted beam shape and direction. According to measurement wavelength and required resolution, it is possible to select imaging detector from Synos' imaging detectorlineups. Additionally, in combination with Synos' optical beam analysis module AP013, it is easy to build up NFP measurement system for high power laser.

【Feature】

*Optical beam power is attenuated to appropriate level for beam profile measurement by beam sampler and ND filter.
*Optical magnification is 10x (standard), maximum 20x (option, in combination with 10x objective lens and optional 2x intermediate lens.
*Coaxial epi-illumination port is originally equipped. In combination with epi-illumination light source (option), it is possible to adjust and align measurement position by observing real microscopic image.
*In combination with Synos' optical beam analysis module **AP013**, it is easy to build up NFP measurement system for high power laser.

【Summery of specification】

*Measurement method:	NFP measurement optics with beam sampler & image processing and analysis method.
*Wavelength:	Specify the measurement wavelengh within 400nm - 1100nm wavelength range
*Available input power:	5W (standard, possible to respond to inquiries)
*Objective lens:	10x
*N.A.:	0.28
*Intermediate lens:	1x (standard), 2x (option, 2x intermediate lens)
*Optical magnification:	10x (standard, using 10x objective lens) 20x (option, using 10x objective lens and 2x intermediate lens)
*Field of view:	Standard : approx. 647 x 483μm (using 10x objective lens and Synos' high resolution digital CCD detector **ISA011**) Option : approx. 313 x 234μm (using 10x objective lens + 2x intermediate lens and Synos' high resolution digital CCD detector **ISA011**)
*Pixel resolution:	Standard : approx. 0.46um (using 10x objective lens and Synos' high resolution digital CCD detector **ISA011**) Option : approx. 0.25um (using 10x objective lens + 2x intermediate lens and Synos' high resolution digital CCD detector **ISA011**)
*Coaxial epi-illumination:	Port : φ8mm(external diameter) port for coaxial epi-illumination light source unit Option : Coaxial epi-illumination light source unit
*Attenuation method:	Beam sampler : approximately 5% of the entire beam is reflected and introduced to the optics. ND filter : for fine adjustment of optical beam power
*Camera mount:	C mount

【Application】

*NFP measurement, beam profile measurement, beam shape measurement of high power laser and related optical module
-Beam profile measurement of high power laser for laser headlight, laser machining, medical, solid laser excitation, printing, etc.
-Fiber laser
-Another high power laser and related module