

## COLLIMATED BEAM MEASUREMENT SYSTEM

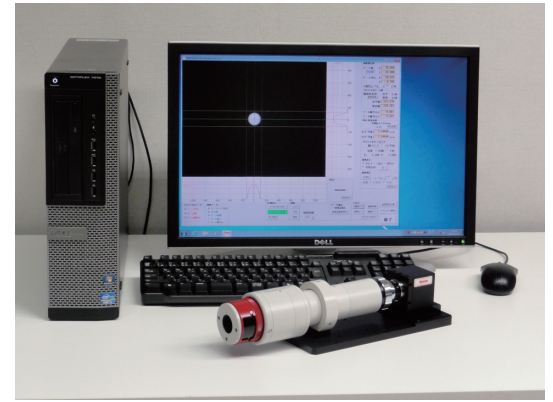
Collimated beam pattern measurement system in combination with collimated beam measurement optics & image processing.

### [Product overview]

**Collimated beam measurement system** is for observation and analysis system of collimated beam condition, best for collimator lens alignment of various collimator devices and modules. Synos' **M-Scope type C**, collimated beam measurement optics, is adopted in this system. In combination with **M-Scope type C**, imaging detector and image processing system, it realizes quick and realtime observation and measurement of collimated beam condition of various optical devices and modules. It realizes the collimator lens position alignment and adjustment easily and quickly by realtime observation and analysis of collimated beam. In addition, in combination with motorized automatic positioning stage system and image processing, it is also applicable for automatic alignment and adjustment system of various collimator modules.

### [Feature]

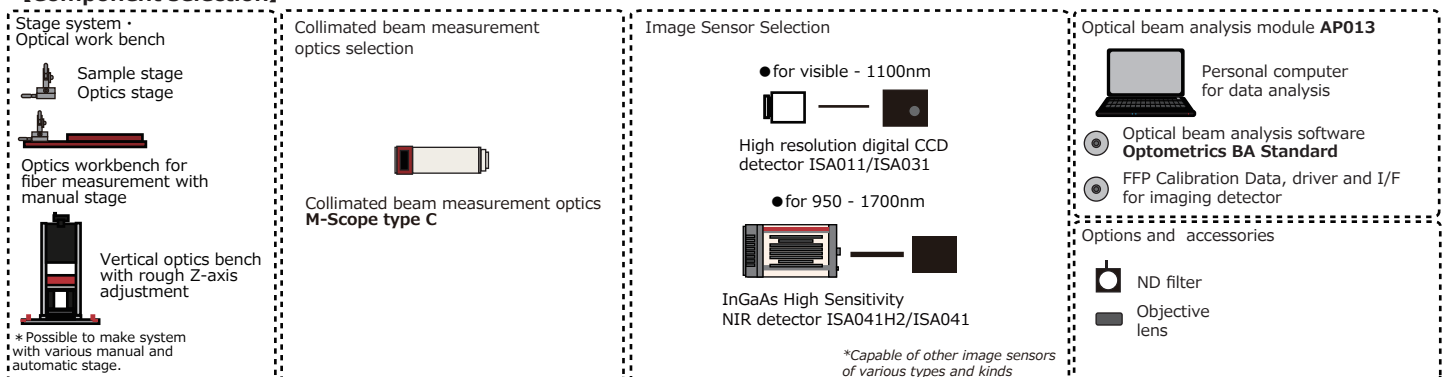
- \* Synos' **M-Scope type C**, collimated beam measurement optics, is adopted.
- \* Realize quick, easy, and realtime measurement in combination with special optics and image processing method.
- \* Realize high resolution with approx. 0.01° measurement angle resolution.
- \* Realize high precision collimated beam adjustment.
- \* Possible to select suitable image sensor, from visible to NIR region
  - For visible - 1100nm : **ISA011**, high resolution digital CCD detector
  - For 950nm - 1700nm : **ISA041H2**, InGaAs high sensitivity NIR detector
- \* Optical beam analysis module **AP013**, specially designed high-functional image processing system for optical beam profile analysis
  - Essential and useful functionality for NFP, FFP, beam profile analysis, EF/EAF analysis are equipped in Synos' original optical beam analysis software **Optometrics BA Standard**.
- \* High system expandability with various optional units
  - In combination with various positioning stages, it is possible to build up easy-to-use measurement system. In addition, with Synos' underfilled launch optics M-Scope type G and mode-selective launch optics M-Scope type ML, it is possible to build up advanced FFP measurement system for multimode device such as MMF, OPCB waveguide under special launch condition.



### [Application]

- \* Collimator lens adjustment of various VIS-NIR LD modules.
- \* Evaluation of collimated beam quality
- \* Alignment, adjustment, evaluation of various collimator modules
- \* Alignment, adjustment, evaluation of collimator lens installed in butterfly package LD modules

### [Component selection]



\*A variety of system setup is possible depending on the purpose and application. Please feel free to contact us.

### [Main component]

- \* Collimated beam measurement optics
  - Collimated beam measurement optics **M-Scope type C**
  - **About collimated beam measurement optics in details, please refer to P8.**
- \* Image sensor selection (recommendation)
  - For visible - 1100nm : Synos' Hi-resolution digital CCD detector **ISA011/ISA031**
  - For 950nm - 1700nm : Synos' InGaAs high sensitivity NIR detector **ISA041H2**
  - **About imaging detector in details, please refer to P25-28.**
- \* Optical beam analysis module **AP-013**
  - Personal Computer system for data analysis
  - Image processor board & interface board set
  - Optical beam analysis software : **Optometrics BA Standard** (Optometrics BA Standard main program, calibration data set, driver and I/F software for imaging detector)
  - **About AP013 in details, please refer to P24.**
- \* Standard accessories
  - Cables, manuals

### [Option, accessory]

- \* ND filter
  - Possible to supply due to attenuation ratio, measurement wavelength, etc.
  - **About ND filter in details, please refer to P31.**
- \* Optical workbench
  - Optical workbench for fiber measurement
  - Vertical setup optical workbench
  - **About optical workbench in details, please refer to P32.**