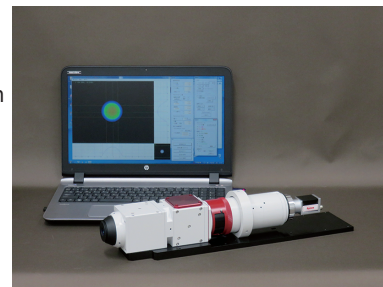


**WIDE AREA FFP MEASUREMENT SYSTEM**

FFP measurement and analysis system in combination with dedicated wide area FFP measurement optics & image processing method.

**Wide area FFP measurement system** is a radiation angle distribution (far field pattern) measurement system that uses wide area FFP measurement optics **M-Scope type FW** with the measurement target luminous flux diameter of about 3 mm. It is suitable for FFP measurement, emission angle distribution measurement, N.A. measurement and analysis of beam emitted from a large area light emitting elements or large core optical fibers.



**[Features]**

- **M-Scope type FW**, wide area FFP measurement optics
  - Quick measurement by dedicated wide area f-θ lens optics and image processing method.
  - Covers samples with a wide emission area with a luminous flux diameter of about 3 mmφ.
  - Long working distance design with the working distance of approx. 4mm±0.4mm.
- Possible to measure in 400nm to 1700nm wavelength range by selecting detector.
- Optical beam analysis module **AP013**, specially designed high-functional image processing software for optical beam profile analysis
  - All-in-one package of PC, optical beam analysis software, detector driver, correction data.
  - High-performance image processing software for optical beam profile measurement **Optometrics BA Standard** is pre-installed.

**[Standard component]**

- Wide area FFP measurement optics selection
  - 650~1700nm: **M-Scope type FW**
  - 400~650nm: **M-Scope type FW/BL**
- Available detector selection
  - 400~1100nm : 1" CMOS detector **ISA061**
  - 950~1700nm : VGA InGaAs NIR detector **ISA041VH**
- Optical beam analysis module **AP013**
  - PC for image processing, optical beam analysis software **Optometrics BA Standard**, detector driver, calibration data, USB key
- Accessories
  - Cables, instruction manuals, etc.

**[Option]**

- Dedicated φ35mm ND filter
  - NIR (700~1100nm): **NDF NIR35-5** (5 types per set)
  - IR (1310~1550nm): **NDF IR35-5** (5 types per set)
- Optics bench
  - Optics bench for fiber measurement with manual stages
  - Vertical setting optics bench

**[Available detectors, angle coverage, pixel resolution (approx.)]**

Detector	1" CMOS detector <b>ISA061</b>		VGA InGaAs NIR detector <b>ISA041VH</b>	
Spectral range	400~1100nm		950~1700nm	
Total pixels	2048×2048 pixels		640×512 pixels	
Pixels pitch	5.5μm sq.		20μm sq.	
Meas. angle / Pixel resolution	Meas. angle	Resolution	Meas. angle	Resolution
	approx. ±43° N.A. 0.68	approx. 0.05°	approx. ±43° (H)×±40°(V)	approx. 0.167°

\*Pixel resolution: Measured angle equivalent to the detector pixel calculated from measured angle range and sensor pitch of the detector.

**[Component selection of wide area FFP measurement system]**

○ Stages · optics bench

Sample stages  
Optics stages

Optics bench for fiber measurement

Vertical setting optics bench

\* Can be combined with various motorized/manual stages

○ Wide area FFP measurement optics selection

Wide area FFP measurement optics  
M-Scope type FW

- M-Scope type FW (for 650-1700nm)
- M-Scope type FW/BL (for 400-650nm)

○ Detector selection

- for 400~1100nm

1" CMOS detector  
ISA061

- for 950-1700nm

VGA InGaAs NIR detector  
ISA041VH

○ Optical beam analysis module **AP013**

- Personal computer
  - Main unit
  - Accessories
- Optical beam analysis software **Optometrics BA Standard**
  - Detector driver
  - Calibration data
  - USB licence key

○ Accessories

35φ ND filter