

## OPTICAL BEAM ANALYSIS MODULE HAVING EF/EAF ANALYSIS FUNCTION AP013

Image processing hardware and software package for optical beam profile measurement. EF/EAF analysis function is supported as standard function.

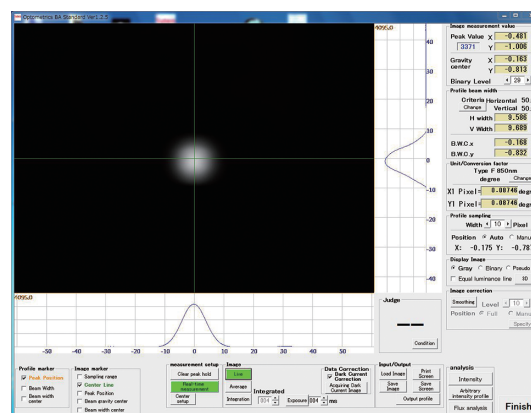
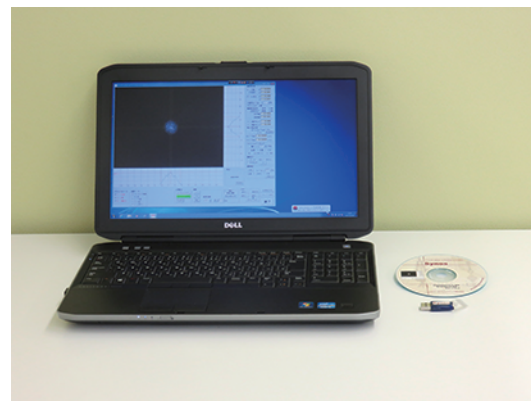
## [Product overview]

**Optical beam analysis module AP013** is the image processing and data analysis system focusing on optical beam profile measurement and analysis, widely applicable to optical beam profile measurement application such as NFP, FFP, collimated beam and other optical beam analysis application in combination with Synos' optical system, **M-Scope series** and imaging detectors, **ISA series**. **AP013** is composed of personal computer for image processing and data analysis, optical beam analysis software having optical beam measurement and analysis functions, **Optometrics BA Standard**. Additionally, **Optometrics BA Standard** is equipped with encircled flux and encircled angular flux analysis function that is the standard analysis parameters for MMF.

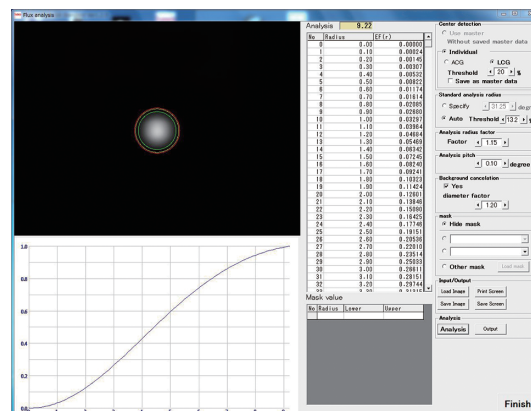
◆ OPTICAL BEAM ANALYSIS SOFTWARE *Optometrics BA Standard*

## [Main feature for Optometrics BA Standard]

- \* Image acquisition and processing
  - Live image display, Image averaging and accumulation, Data correction of dark current, Storage and read out of image data
- \* Setting function
  - Center setting, Image peak position, Position of the center of gravity for beam, Profile peak position, Profile width, Defining center position or any given position, Conversion rate set, Display converted value (pixel/ $\mu\text{m}$  /degree)
- \* Measurement and Analysis function
  - Display function of peak position and luminance value (Display of maximum luminance value in the image and its position), Center of gravity of beam (Center of gravity position display for the area that the binarized image peak presents), Display function of horizontal and vertical intensity profile/Real time beam profile display by peak position automatic search or any given position by manual setting, Setting function of measurement width, Peak hold function
  - Measurement function : Calculating Beam width (half value width, 1/e<sup>2</sup> down width, Setting % down width), Converted unit value display, Conversion unit value display for selected beam width center position)
- \* Display function
  - Image display function (Gray scale, Binarized scale, Pseudo-color, 3D display of optical intensity profile, Contour intensity display), Marker display function (Display the cursor position on peak position, beam width and beam width center position in the profile display window. Display the marker on sampling area, center line, peak position and beam center of gravity.)
- \* Encircled Flux / Encircled Angular Flux analysis function
  - Encircled Flux analysis function (Data output and graphical display), Display function (Image display function: Display of acquired image/Superimposed display), Encircled Flux Graph, Data storage (CSV output, Image storage)
- \* Data storage
  - Image storage (TIFF/BMP/CSV), Optical intensity profile (CSV), EF/AF Data (CSV), Measured image hard copy (BMP)



Optometrics BA Standard main operation window



Optometrics BA Standard encircled flux / angular encircled flux analysis function

## [AP013 System selection]

MODEL	DETECTOR SELECTION	INTERFACE	COMPONENT
AP013D-01	High resolution CCD detector ISA011	GigE	personal computer x1, Optical beam analysis software Optometrics BA Standard x1 license, driver software for GIGE interface x1, calibration data x1
AP013U-01	InGaAs high sensitivity NIR detector ISA041	USB	personal computer x1, Optical beam analysis software Optometrics BA Standard x1 license, driver software for USB interface x1, calibration data x1

## [Main component]

- \* Personal computer system for image processing and data analysis ... 1set
  - OS: Windows 7 professional 32bit
  - Processor: Intel core i5 (or corresponding specification)
  - Main memory: 4GB
- \* Optical beam analysis software Optometrics BA Standard ... 1 license
  - Software install media: 1 (including Optometrics BA Standard, Driver and interface software for detector, Calibration data)
  - Software license key (USB key): 1