CEP-25ML Spectral Response Measurement System

For Multi-junction solar cells and compound semiconductor solar cells

*Actual color of the instrument is black

By irradiating monochromatic light on the solar cell in constant energy or constant photons that does not have dependency on the wavelength, the model CEP-25ML is able to measure the spectral response and quantum efficiency of the various kinds of solar cell. For the measurement of the multi junction solar cells, a color bias light source is employed in the system.

A white bias light source is available as a standard which enables the model CEP-25ML to measure the I-V curve with the AM-1.5G filter as a solar simulator easily in addition to spectral response measurement under the pseudo sunlight.

■Specifications

Measurement Spectral response, quantum efficiency,

items I-V curve

Wavelength range 300~1700nm (extended up to 2000nm

as an option)

Monochromatic light

Light source Xe lamp (option: Halogen lamp)
Irradiation area 20×20mm (option: 50x50mm)

Wavelength purity Variable, Max. 20nm

Irradiation intensity $5\sim50\mu\text{W/cm}^2(350\sim1200\text{nm})$

In-plane uniformity $\pm 2.5\%$ Constancy of wavelength intensity

±3%

Irradiation mode Constant energy, constant photons

Measurement mod DC and AC(13~100Hz)

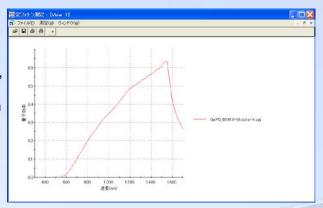
White light bias

Light source Xe lamp (automatic color bias)

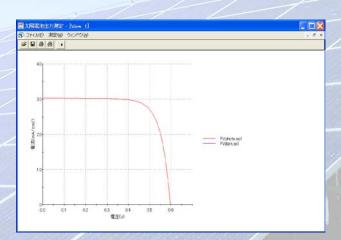
Irradiation area 20x20mm

Spectral match Class A(0.75~1.25)

(under Japan Industrial Standard)



Ge photodiode in constant photons mode (example date)



I-V measurement (example data)

*The specifications and appearance are subject to change without prior notice.

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