## Overview

The 8250A is a bench-type optical power meter, which is most suitable for R&D and production of LDs, optical pickups, and drives for optical disks.

It has 0.001dB resolution and 5 1/2-digit display and is also quipped with GPIB and USB interfaces as standard, allowing easy automated system establishment.

Nine kinds of optical sensors with various purpose (general-purpose/blue-violet/high-power/three-wavelength) and different shapes (thin-type/ cylindrical-type) are available. The three-wavelength optical sensors 82314A, 82324A and 82314W are capable of measuring 405nm, 650nm, 780nm wavelength ranges. The blue-violet optical sensors 82312 and 82322 have realized a flat wavelength sensitivity characteristic and low dependency on an angle of incidence in the 405 nm range. The high-power optical sensors 82313 and 82323 enable high-power measurement of up to 200mW.

Furthermore, the optical sensors for the TQ8210/TQ8215 series are also usable.

## **Features**

- \* High resolution 0.001dB, 5 1/2-digit display
- \* GPIB and USB interfaces
- \* Various sensors available by use
- 1) three-wavelength optical sensor applicable to Blu-ray disk, DVD (650nm) and CD (780nm), most suitable for pick up evaluation (82314A/82324A/82314W)
- Flat wavelength sensitivity characteristic and low dependency on an angle of incidence in the 405/650/780 nm bands
  - Low reflection; less measurement deviation due to multi reflection between the sensor and the pickup.
  - 2) Blue-violet optical sensor most suitable for Blu-ray disk in the 405nm band (82312/82322)
  - Flat wavelength sensitivity characteristic and low incident-angle-dependency in the 405 nm band
  - Low reflection; less measurement deviation due to multi reflection between the sensor and the pickup
  - 3) High-power optical sensor of up to 200mW (82313/82323)
- The maximum light-receiving power of 200 mW suitable for pickup measurement of high-speed rewritable  $\mbox{CD/DVD}$
- It is possible to measure high power density without saturation up to 200 mW even at  $0.1 \text{mm}\phi$  spot diameter.
  - 4) Low-price general-purpose optical sensor (82311/82321)
- \* Both thin-type and cylindrical-type optical sensors are available. Manual measurement and system built-in measurement can be performed easily.
  - \* Sensor power calibration wavelength: 405/650/780nm
- Maximum three-wavelength power calibration is available on just one sensor by adding the calibration wavelength options. (405nm: OPT+21/650nm: OPT+22/780nm:OPT+23)
- \* The optical sensors for the TQ8210/TQ8215 series (82014A/82017A/82015/Q82018A) are also usable.

## **Optical Power Meter Accessories (Optical Sensors)**

Model	Product Name	Description
82311	Optical Sensor (General-purpose, thin type)	Sensing area: Approx. 9.5mm x 9.5mm 390 to 1100nm, -60 to +17dBm (1nW to 50mW) Beam spot: at 3mm dia. or more

82312	Optical Sensor (Blue-violet, thin type)	Sensing Area: Approx. 10mm x 10mm 390 to 450nm, -50 to +20dBm (10nW to 100mW)  Beam spot: at 1 mm dia. or more
82313	Optical Sensor (High-power, thin type)	Sensing area: Approx. 8.5m dia. 390 to 1100nm, -50 to +23dBm (10nW to 200mW) Beam spot: at 0.1mm dia. or more
82314A	Optical Sensor (Three-wavelength, thin type)	Sensing area: Approx. 10mm x 10mm 390 to 900nm 405nm, -50 to +20dBm (10nW to 100mW) Beam stop: at 1mm dia. or more 650nm, -50 to +20dBm (10nW to 100mW) Beam spot: at 3mm dia. or more 780nm, -50 to +20dBm (10nW to 100mW) Beam spot: at 3mm dia. or more
82314W	Optical Sensor (Three-wavelength, thin type)	Sensing area: Approx. 18mm x 18mm 390 to 900nm 405nm, -50 to +20dBm (10nW to 100mW)  Beam stop: at 2mm dia. or more 650nm, -50 to +20dBm (10nW to 100mW)  Beam spot: at 3mm dia. or more 780nm, -50 to +20dBm (10nW to 100mW)  Beam spot: at 3mm dia. or more 780nm, -50 to +20dBm (10nW to 100mW)  Beam spot: at 3mm dia. or more
82321	Optical Sensor (General-purpose, cylindrical type)	Sensing area: Approx. 8.5m dia. 390 to 1100nm, -60 to +17dBm (1nW to 50mW) Beam spot: at 3mm dia. or more
82322	Optical Sensor (Blue-violet, cylindrical type)	Sensing area: Approx. 8.5m dia. 390 to 450nm, -50 to +20dBm (10nW to 100mW) Beam spot: at 1mm dia. or more
82323	Optical Sensor (High-power, cylindrical type)	Sensing area: Approx. 8.5m dia. 390 to 1100nm, -50 to +23dBm (10nW

Beam spot: at 0.1mm dia. or more

Sensing area: Approx. 8.5m dia. 390 to 900nm 405nm, -50 to +20dBm (10nW to 100mW)

82324A

Optical Sensor (Three-wavelength, cylindrical type)

Optical Sensor (Three-wavelength, cylindrical type)

Optical Sensor (Three-wavelength, cylindrical type)

650nm, -50 to +20dBm (10nW to 100mW)

Beam spot: at 3mm dia. or more 780nm, -50 to +20dBm (10nW to

100mW) Beam spot: at 3mm dia. or more

**A08012** FC Adapter For 82321/82322/82323/82324