QE-B1 Calibrated Silicon Reference Cell, 20 × 20 mm, NIST-Traceable

Model QE-B1 · waveqvanta.com/products/qe-b1-calibrated-silicon-reference-cell

Calibrated silicon reference cell for setting solar simulator irradiance and referencing solar cell conversion efficiency.



The QE-B1 is a 20 × 20 mm monocrystalline silicon solar cell supplied with calibration data traceable to NIST. In solar cell testing, and in I-V measurement in particular, it is used to set the illumination intensity of the light source and to reference the conversion efficiency of the cell under test. Different window materials are available as options.

Key features

- 20 × 20 mm monocrystalline silicon solar cell
- Calibration data traceable to NIST
- Sets the irradiance of the light source before I-V measurement
- Optional window materials
- Used with I-V measurement software for Keithley 24XX series source meters (Isc, Voc, FF, efficiency, Rs, Rsh)
- Software supports forward/reverse scans with speed control, dark-current subtraction, cycle scans and dual-voltage I-t scans

Specifications

Cell Type	Monocrystalline silicon solar cell
Cell Size	20 × 20 mm
Calibration	Traceable to NIST
Window	Different window materials optional
Typical Use	Light source irradiance calibration for I-V measurement
Companion Software	I-V measurement software for Keithley 24XX series source meters
Software Parameters	Isc, Jsc, Voc, Pmax, Imp, Vmp, FF, efficiency, Rs, Rsh
Software Scan Modes	Forward/reverse with speed control, dark-current subtraction, cycle scan, dual-voltage I-t

Typical applications

- Irradiance calibration of solar simulators
- Solar cell I-V measurement
- Conversion efficiency comparison of solar cells
- Reference device in photovoltaic test systems