



EQE and I-V for solar cell characterisation

Compact and Flexible System

- QUESA-1200 -

Based on stable monochromatic LEDs
Work in AC and DC modes
Combination of EQE and I-V



- ✓ Fast calibration and measurement < 30 s
- ✓ Flexible bias light : S/W selectable
- ✓ No optical adjustment
- ✓ Stable measurement
- ✓ Compatible with Glovebox





Performances and Specifications

Wavelength range

- 370-1200 nm (standard) with 32 wavelengths
- Option with extended wavelength range
- Customized spectrum range
- Customized number of wavelengths and spacing

Measurements

- absolute EQE and SR
- J_{sc} (mA/cm^2) deduced from SR and AM1.5G spectrum
- very fast EQE measurement: 15 to 30 s
- Measurement and light in AC or DC modes
- I-V measurement with adjustable light spectrum
- I-V option in flash mode with adjustable timings
- Illumination diameter : from 1 mm to 6 mm
- reproducibility $< \pm 1\%$ under stable RT conditions
- accuracy $<$ few nA current lower limit
- Easy and fast calibration with reference cell
- compliant with ASTM E1021-15 international measurement norm

Bias Light

- software selectable bias light spectrum
- user can create it's own bias light spectrum file
- easy to use, no need any hardware change

Bias Voltage

- up to ± 5 V

Cell type

- single junction: superstrate-type or substrate-type
- multi-junction : using bias light
- Sample area: in the range of 1inchx1 inch
- all types of solar cell : a-Si, $\mu\text{-Si}$, OPV, CIGS, perovskite, DSSC, etc

Options

- reference cell
- customized sample holder and electrical contacts
- customized spectrum range

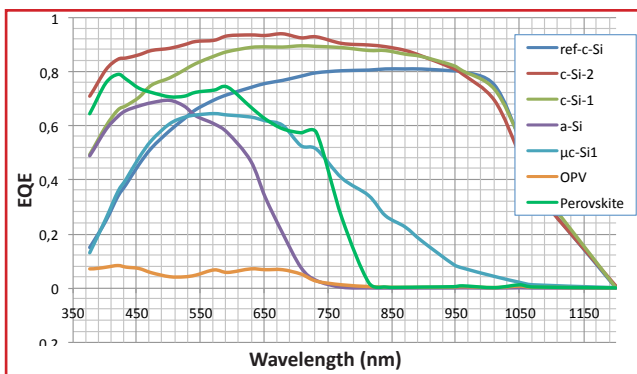
Dimensions

- compact size: $W \times L \times H$ (cm) = 20 x 40 x 30
- suitable for Glovebox and other small volumes

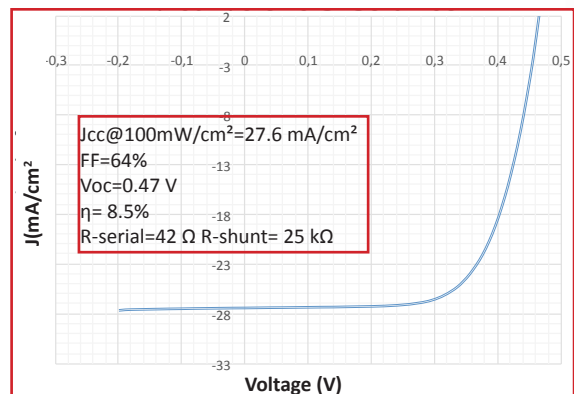


Typical data

EQE measurement for different types of cells



I-V curve of c-Si solar cell



To contact us

www.tfscinstrument.com - info@tfscinstrument.com - Tel : +33(0) 1 69 19 43 49 - Mob : +33(0) 6 59 26 06 02

TFSC-Instrument SAS

3 Rue Léon Blum, 91120 Palaiseau France - Tel : 33 (0) 1 69 19 43 48 - www.tfscinstrument.com
Société au capital de 30 000 € - R.C.S. Evry-Siret 794 759 795 00014 - code APE 2651B
TVA N° FR 94 794 759 795

