K3100

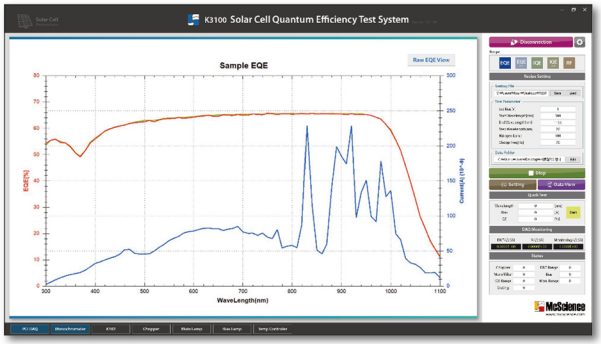
Solar Cell QE Test System

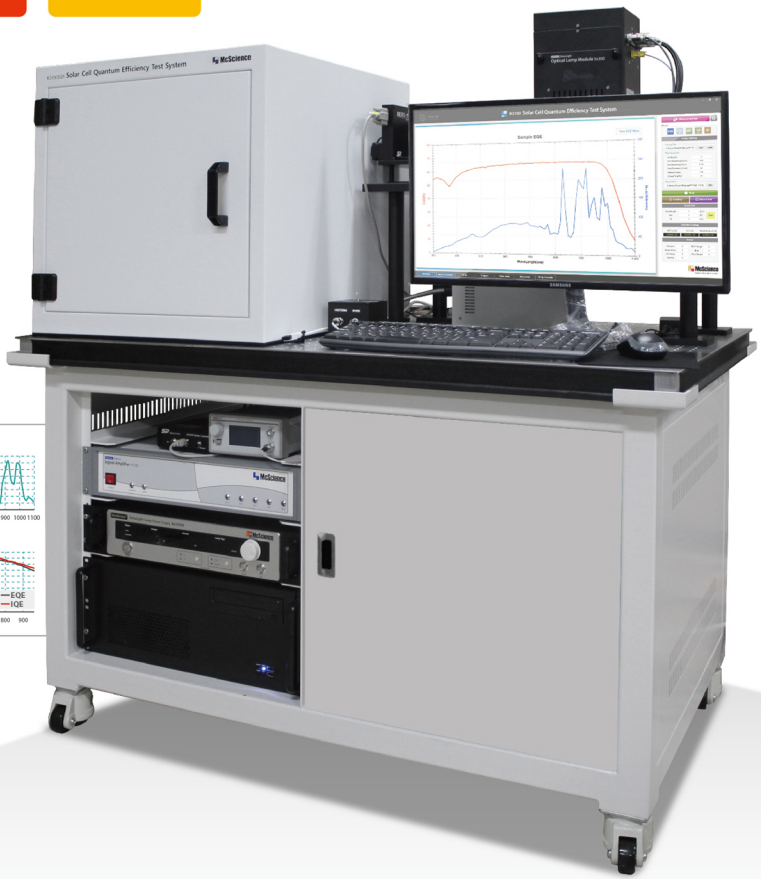
Electrical, Optical & Thermal
Imaging & Test Systems

Standard Test Equipment for Solar Cell Quantum Efficiency Measurement

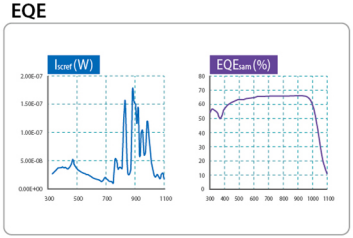
The ratio of incident photons to collected electrons in output current is calculated as external quantum efficiency of solar cell based on standard spectral response measurement. Optional instruments allows reflectance measurement and internal quantum efficiency measurement, and automatic positioning.

Spectral Response + **EQE** + **IQE** + **NIR** + **DC/AC**

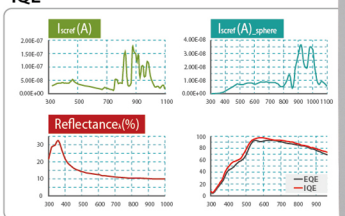




EQE



IQE



Spectral Response
Incident Photon to Current Efficiency
External Quantum Efficiency
Internal Quantum Efficiency
DC/AC/NIR Measurement
Automatic Scanning / Positioning

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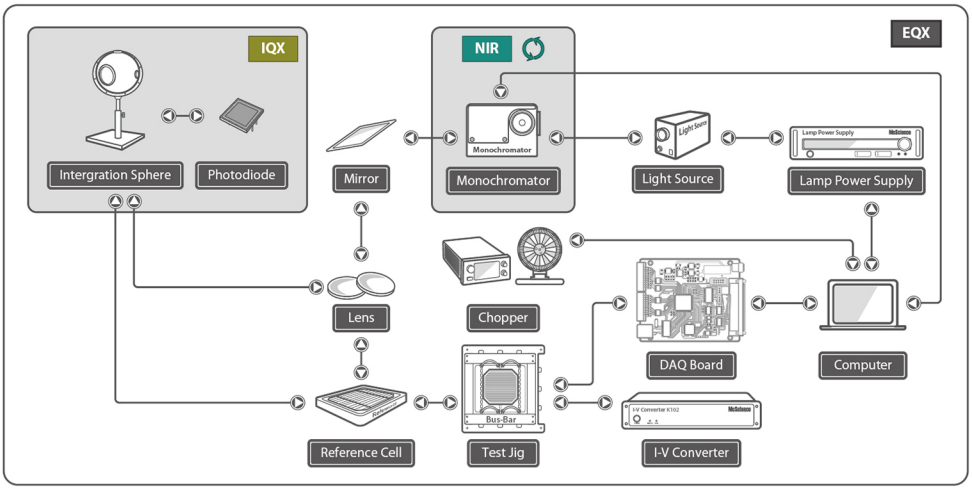
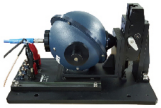
System Configuration



System Components


<Light Source>


<Monochrometer>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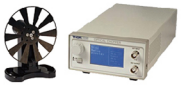
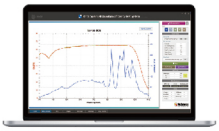
<Signal Amplifier>


<Lamp Power Supply>


<Chopper>


<Filter Wheel>


<Test Software>

System Specification

Model Name	K3100 Solar Cell Quantum Efficiency Test System
Mode	AC/DC
System Model	EQX : External Quantum Efficiency / IQX : Internal Quantum Efficiency / ATX : Surface Relectance / NIRX : NIR External & Internal Quantum Efficiency
Wavelength Range	EQX : 300nm ~ 1,100nm / NIRX : 300nm ~ 1,500nm
Optical Chopper	1 ~ 99Hz(2blade)
System Configuration	Light Source (Xe Lamp), Lamp Power Supply, Monochrometer, Filter Wheel, Signal Amplifier, Chopper, Halogen Lamp, PC
Measurement	StartWave, ErdWave, StepWave, Number of Average, Delay (msec), IdpR, IdpS, I-Ref, I-Sample, Current (A), Frequency (Hz), Reflectance (%)
Dimension	Size (mm) : (W) 1,200mm x (D) 800mm x (H) 1,000mm, Weight (Kg) : <650Kg, Utility : 220V
Test Sample	Solar Cell, Electro Chemistry
Beam size	1.2mm ~10mm

B-1102, Digital Empire Bldg. 1556-16 Deogyeong Blvd., Yeongtong, Suwon, 16690, Korea
(T) +82-31-206-8008 (F) +82-31-206-8007 (E) sales@mcscience.com (H) www.mcscience.com

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