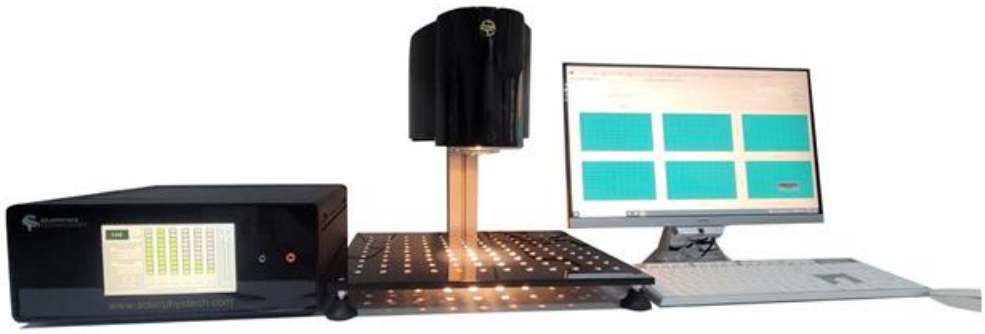
SOLAR IV AND IMPEDANCE ANALYZER CHARACTERIZATION SYSTEM SM- X5



Solar simulator IV Characterization system

SOLARPHYSTECH solar simulator is manufactured in accordance with IEC 60904-9 2007, JIS C 891 standards.

SS-X5 solar simulator is automatically measured I-V and P-V, I-t and V-t measurements by changing solar irradiance from 1 mW/cm2 to 100 mW/cm2 by any step.

SS-X5 solar simulator automatically analyze photovoltaic mechanism of solar cell

SS-P5 solar simulator can measure the current values from 50 pA to 200mA with a source meter.

Automatically intensity light Control

Class AAA Solar Simulator

• 1.5G Air Mass Filter

• Plasma lamp or Xenon Arc Lamp or Equivalent light source

Irradiance of plasma lamp is automatically controlled from 1W/m^2 1000 W/m^2 (0.1 to 1.0 sun or more) by a certain step

Ozone Free Xenon Arc Lamp gives only 1000 W/m2, I SUN

• Digital Shutter Timer

Plasma lamp has automatically shutter on and off by software.

This feature allows the solar simulator to automatically measure current time measurements on and off. Since the xenon lamp switch is not on or off, the current time measurement is made only under 1 sun. In this case phototransient. Current and voltage. Measurements cannot be made.

• Baseplate

• Stand

Power Requirements	100-240 VAC, 50-60 Hz, 300W
Operating Temp Range	20^{o}C to 30^{o}C
Humidity	<85%, relative, non-condensing
Certificate	ISO 9001 :2015, CE CERTIFICATE
Uniformity Classification	A - IEC 60904-9 2007, JIS C 8912,
ASTM E 927-05	
Temporal Stability	A
Spectral Match	A

(For detailed specification, Brochure is attached)

▪ Source Current range: ±.50 pA to ± 200 mA

▪ 2-Wire Universal

Loads (SolarTech Sourcemeter, Keithley Source Meter 2400) and Solar Simulators supported

Measurement Parameters

Voc, Isc, Vmpp,

I_{mpp}, FF, R_{sh}, R_s, n, I vs. time, V vs. time

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• Single cell and module metrology

• Light and Dark curve measurement

Solarphysics Solar simulator automatically measures dark first and then variable irradiances other measurements

• Temperature dependency analysis

Solarphysics Solar simulator includes also a temperature controller.

• Long term measurements and light Soaking

Xenon light can not work for long time, for example 24 Hour.

Plasma light to Xenon work during 24 day.

Silicon reference cell

• Area of cell 1x1 cm2

• Window: Spectral matching filter

Compatible with solar cell of Sandwich construction (DSSCs)

Superstrate (Silicon Solar cells CIGS solar cells) and

single substrate thin-film devices (Perovskite Solar cells, Quantum dot Solar cells, and Polymer heterojunction Solar cells).

Top or bottom illumination compatible