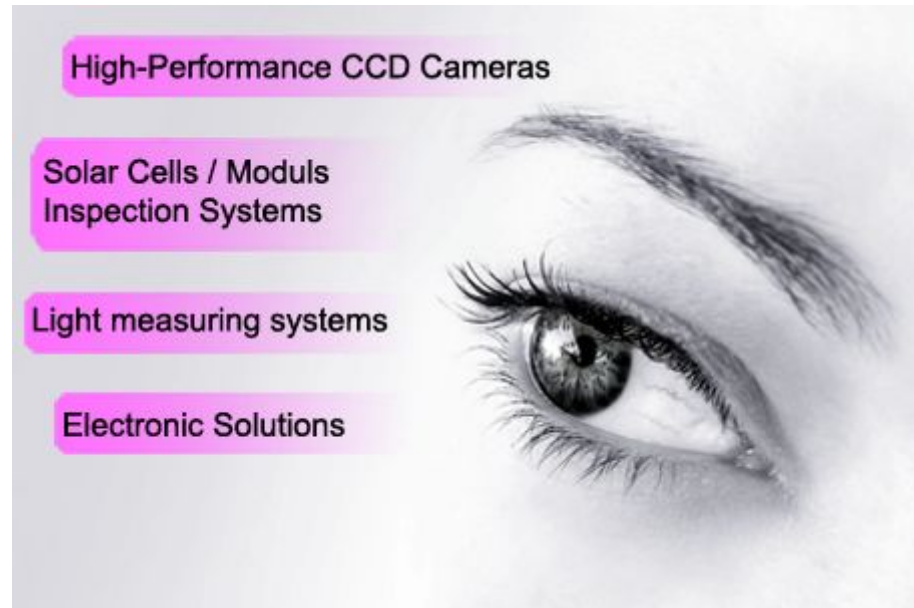


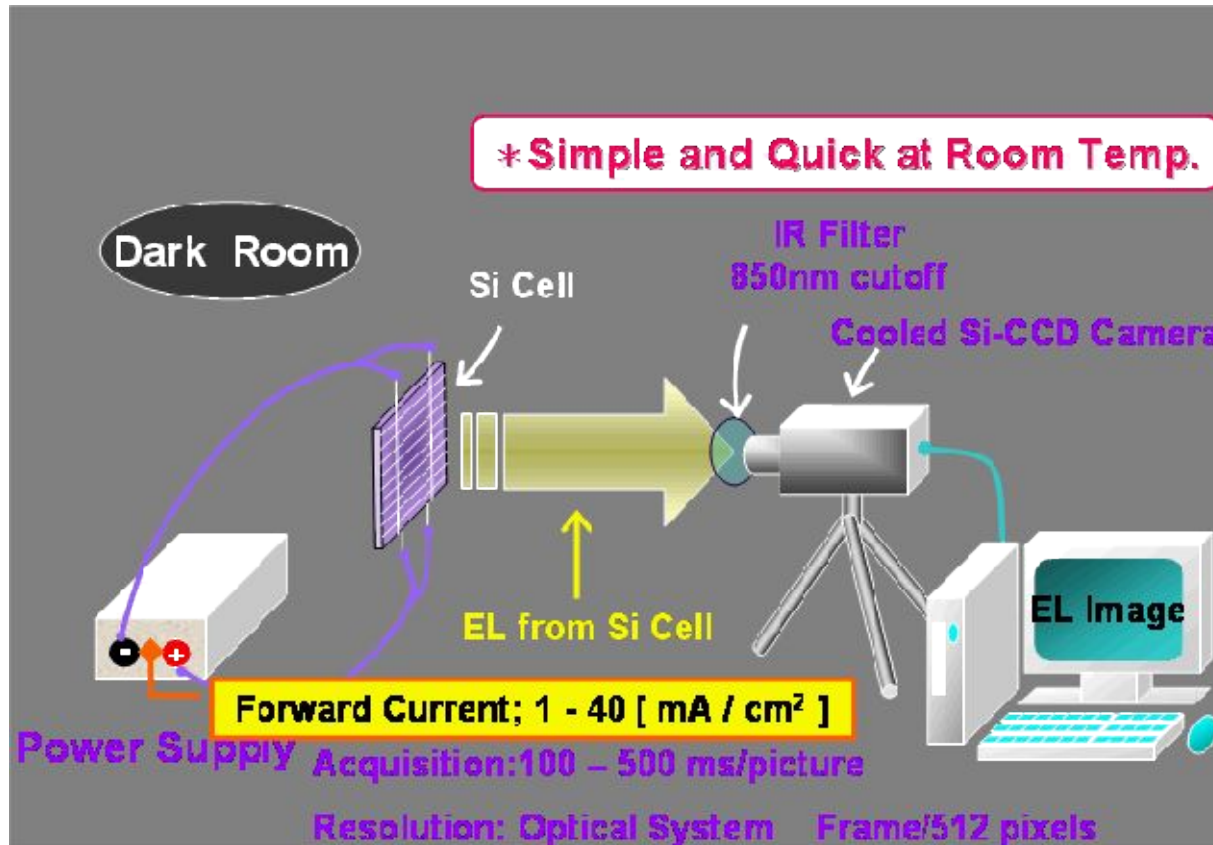
## **Solar Cell & Module Test Tester**



**ZONETECH CORP.**

[www.zonetech.co.kr](http://www.zonetech.co.kr)

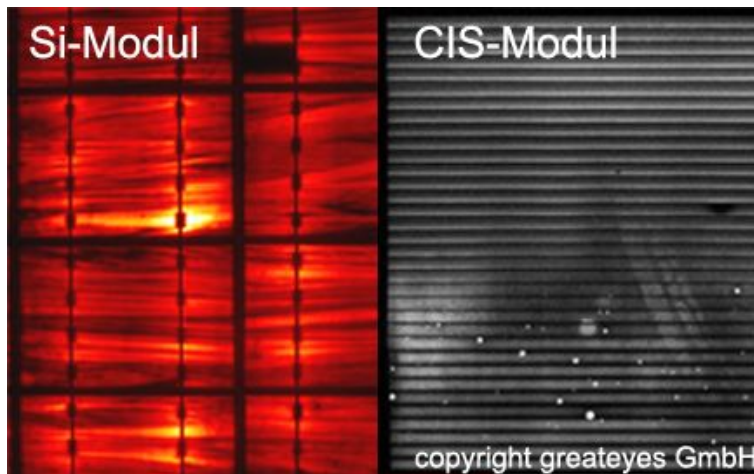
**EL detector system**



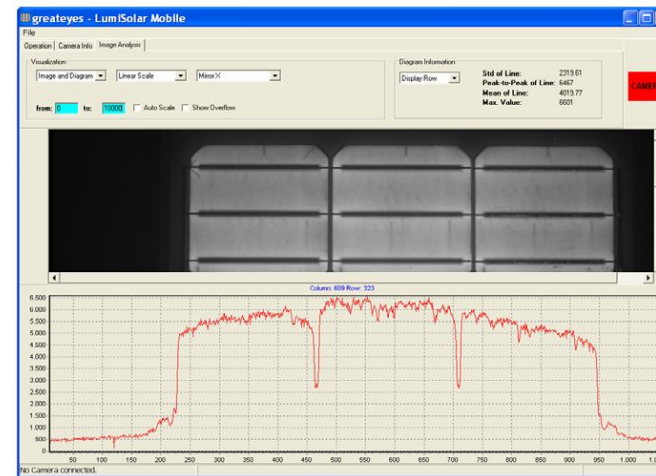
**Fig.1 Experimental Apparatus**

## Electroluminescence Inspection for Solar Cells and Modules

The LumiSolarProfessional and LumiSolarMobile systems utilize the electroluminescence to image micro cracks, cell failures and inhomogeneities of photovoltaic cells.



Imaging for Si-Module & CIS-Module



LumiSolarMobile Software

### Key Features:

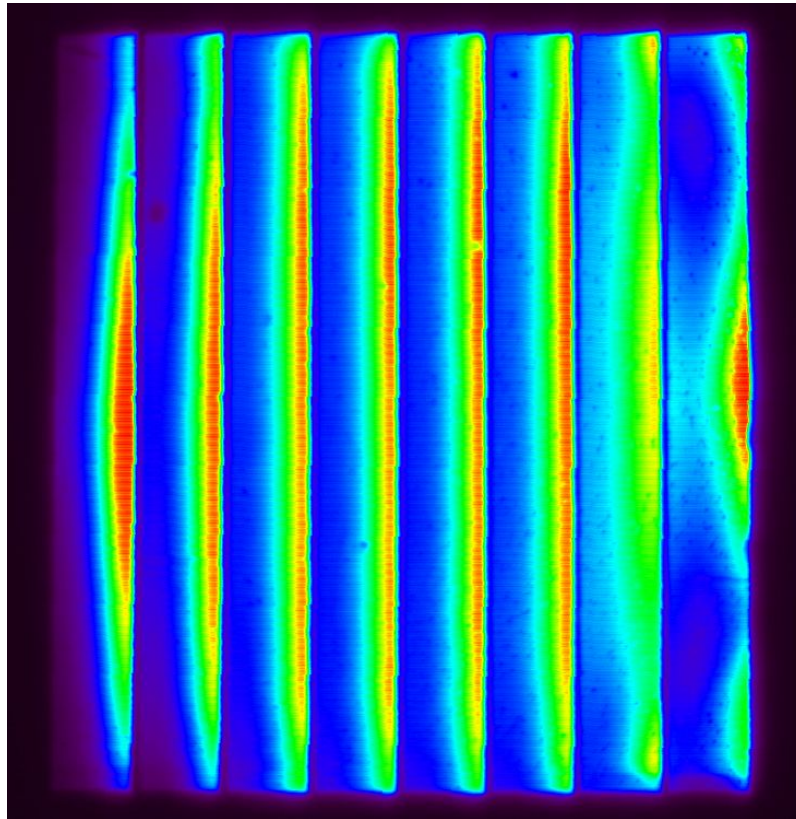
- Targets: Cell, String, Matrix or Module
- Application Materials:
  - Mono-Si
  - Poly-Si
  - a-Si
  - CIS
  - CIGS
- Work size: Min.50 x 50mm ~ Max.1500 x 3000mm
- Images: Excellent Quality, High resolution (1024 x 2048 pixel)

### Areas of application:

- Final Inspection of solar cells
- Identification/ Replacement of defect cells before lamination
- Improvement of general production efficiency
- Research and Development
- Characterization and Qualification

### Inspection capabilities:

- Shunt detects
- Micro cracks identification
- Cell print defects
- Solar cell rear side paste defects
- Detect Inhomogenities , Impurities
- Solar cell / Module efficiency classification

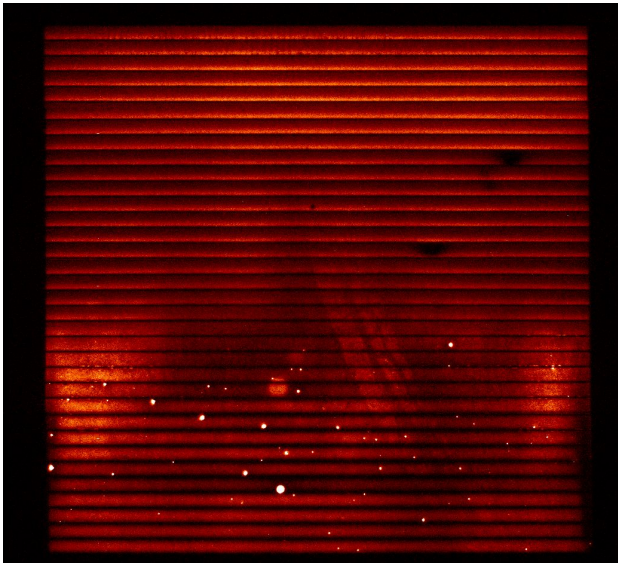


Electroluminescence image of an a-Si solar module in false-color representation (rainbow color map)

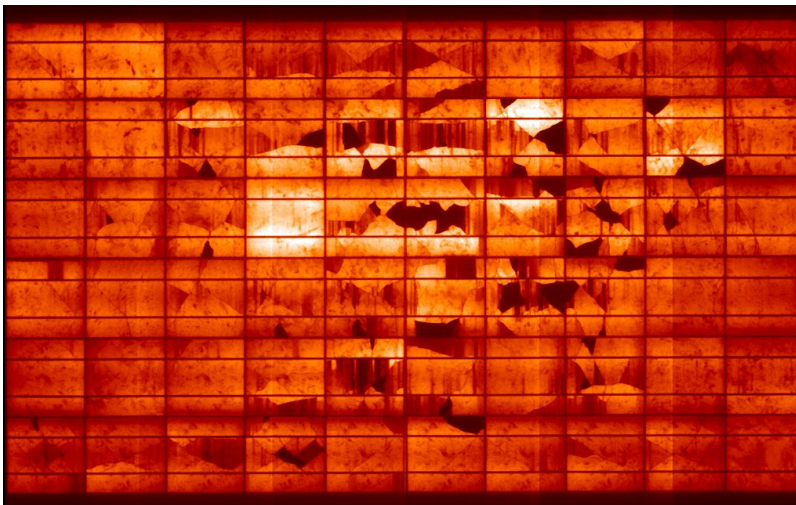


Intensity diagram along the dashed line shown above:





Electroluminescence image of a CIS thin film solar modul in false-color representation (temperature color map)



Poly-Si solar modul in false-color representation (temperature mapping)