



Module lifetime

CEA-INES

Module laboratory

Location of the infrastructure : Le Bourget du Lac, France

Contact person : Eric Gerritsen

Phone : +33 4 79 44 46 68

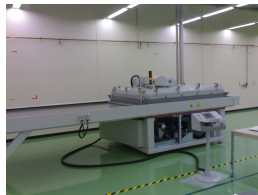
E-mail : eric.gerritsen@cea.fr

Objectives :

- Module processing equipment, to manufacture innovative module designs
- Characterisation and failure analysis equipment

Main features :

1. Conventional 3S Laminator



2. Innovative dispensing, pick and place and press system



3. Climatic chambers and defect characterisation with various equipments.



Limitations or constraints :

Module (max) : 1,7 x 1,37m, thickness up to 20 mm, module weight (max) : 100 kg
Encapsulation : EVA (fast) / PVB / TPU, and design : Glass / Tedlar or Glass / Glass

Typical services or results :

Access to module platform processing line and related equipment in collaboration with technical and scientific assistance : New cells technologies and materials can be assembled and tested.
Two layout are available : The standard one comprises tabbing stringing soldering system and laminator. The innovative one is a semi automatic modular dispensing, pick and place and press system.
Thermal cycling and UV chamber are available. IV curves, VIM method, and electroluminescence can be obtained.
Support will be provided to define the experiment and to analyze the resulting raw data. Users will then be able to analyze the measurements with their own favorite tools.

Examples of research projects :

To develop procedures for advanced failure analysis, to elaborate database on material properties and degradation mechanisms. To innovate in module design.