

STANDARD PRODUCT

CUSTOM PRODUCT



PROTOTYPE

## UNI-SOLAR

### UNI-SOLAR

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### SYSTEM DESCRIPTION

UNI-SOLAR modules use amorphous tandem cells deposited on a fine sheet of stainless steel and protected by a sheet of TEFZEL. Due to their flexibility and the fact that they are not glazed, they can be structurally integrated in various ways.

The roof system exhibited at DEMOSITE is the result of a joint effort of UNI-SOLAR and LESO-PB. The photovoltaic modules were horizontally mounted on ordinary rigid roofing panels and guarantee water tightness.

Numerous roofs have been covered with this system.



## APPLICATION FIELD

Building type	Any type of residential and commercial building whose roof tilts at 15° or more.
Building elements	Direct mount photovoltaic roofing module
Mounting technology	Wood screws, batten clips, parallel and edge flashings
PV Module	Triple-junction a-Si on stainless steel Composite laminate of Tefzel / EVA / Nylon dielectric and galvanized steel structural back Side-by-side terminations Integrated bypass diode on each cell

## AT DEMOSITE

PV Area	26 m <sup>2</sup>
PV Module	Uni-Solar BSR-18 (batten and seam roofing)
Power, voltage	15.3 W, 13.2 V (tandem junction)
Size	1080 x 430 mm
Connection	14 x 5 modules in series; connectors

## UNI-SOLAR

United Solar Systems Corp (Uni-Solar) has developed and perfected a unique proprietary technology to produce rugged flexible solar cells. These are manufactured in a continuous roll-to-roll process in which thin layers of amorphous silicon alloy material are deposited on stainless steel substrates. Current production cells employ triple junction devices.

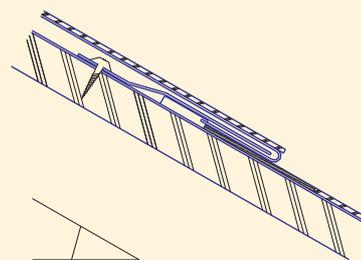
As far as architecture is concerned, marketing policy of Uni-Solar offers now a complete of photovoltaic roofing materials comprising architectural standing seam, structural standing seam, shingles as well as batten and seam roofing.

## SYSTEM TECHNOLOGY

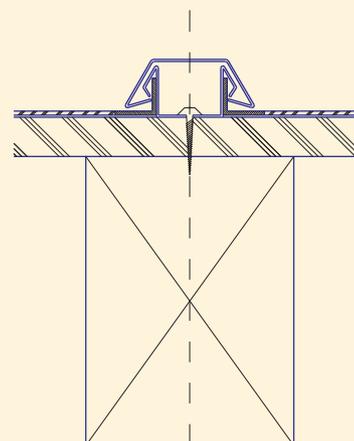
The lower edge of these photovoltaic modules is folded back and slides under a cleat that is screwed to the roof boarding and also holds down the top to the module below.

Lateral bends of 90° convert the modules into large impermeable channels. Clips separate the vertical rows and provide space for module cabling. They are covered with flashings of thermolacquered steel.

Many elements of this roofing system are commercially available all over North America (cleat, flashing, clips, thermolacquered steel sections).



HORIZONTAL JUNCTION



LATERAL JUNCTION