

# ASU-PTL Photovoltaic Module Qualification

Test Certificate 06011901 is awarded to

**Manufacturer: Evergreen Solar, Inc.**

**Type: EC-110**

**Models: EC-120, EC-115, EC-102**

Specifications: 72 polycrystalline silicon cells, Evergreen encapsulated junction box with clear Solar Instant seal or opaque RTV-739 seal, EVA encapsulant, TPE backsheet, tempered low-iron glass Superstrate, and anodized aluminum frame. Maximum system voltage is 600 V. (See photos on back.)

Tested type: EC-110 Sampling: Nine manufacturer-supplied unconditioned test samples

Samples received: 5/31/05, 6/1/05, 6/2/05 and 11/15/05

Tests conducted from: 6/1/05 To: 1/19/06

Tests conducted at: PTL, 7349 E. Unity Avenue, Mesa, Arizona, 85212

This laboratory is accredited by the American Association for Laboratory Accreditation (A2LA).

Manufacturer's Address: Evergreen Solar, Inc., 138 Bartlett Street, Marlborough, MA 01752, USA

Test data and analysis detailed in Test Report #: 06011901

PTL Project: EVR05003, EVR05003A

Certificate Issue Date: January 30, 2006



Certificate #0921-01  
Since 6/23/97

The **Arizona State University Photovoltaic Testing Laboratory (ASU-PTL)** acknowledges that the above photovoltaic modules have been subjected to and passed the minimum requirements defined in test standard:

**1. IEC 61215: Design qualification and type approval for crystalline silicon terrestrial photovoltaic (PV) modules [1993-04].**

The EC-110 qualified by similarity to the EC-120 (projects EVR04001 and EVR04002) based upon IEC/TC82/WG2 Retest Guidelines [5/17/00].

Models listed above are qualified based upon IEC/TC82/WG2 Retest Guidelines [5/17/00] and IEC/TC82/WG2 Type and Model Conventions [4/16/02].

All tests in the above listed test standard(s) are within the ASU-PTL's scope of accreditation. Exception(s): None

Deviations from, additions to, or exclusions from aforementioned test standard(s): None

*This test certificate may be used by the manufacturing company for its own purposes. However, the ASU-PTL cannot accept any legal responsibility from such use.*

*If the tested type undergoes any future design or process modifications, limited re-testing is required to maintain valid certification according to the applicable Retest Guidelines.*

Dr. Govindasamy Tamizh-Mani, Director  
Certifying Authority

Joseph M. Kuitche, Test Engineer  
Certifying Witness

William Shisler, Quality Manager  
Certifying Witness