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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ECOFASTEN SOLAR, LLC AND ESDEC, INC.,  
Petitioners,

v.

UNIRAC, INC.,  
Patent Owner.

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Case No. IPR2022-00088

U.S. Patent No. 9,584,062

Issue Date: February 28, 2017

Title: Apparatus for Mounting Photovoltaic Modules

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**DECLARATION OF BARRY CINNAMON**

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	<b>A.</b> Claim 1 .....	21
	1. [1P] An apparatus for mounting photovoltaic modules, comprising: .....	21
	2. [1.1] a bracket, wherein the bracket defines a slot in a lower portion of the bracket and wherein the slot extends along a longitudinal length of the bracket; .....	22
	3. [1.2] a clamp securable to the bracket on an upper portion of the bracket; .....	26
	4. [1.3] wherein a first photovoltaic module and a second photovol- taic module are mountable on a first side of the bracket and a first side of the clamp, wherein the first photovoltaic module is adjacent to the second photovoltaic module, and wherein only a respective end portion of the first photovoltaic module and the	

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second photovoltaic module is mountable in the first side of the bracket and the first side of the clamp; and.....28

5. [1.4] ..... a footer, wherein the footer is variably positionable on the bracket along the slot.....31

**B.** Claim 6: The apparatus according to claim 1, wherein the footer is generally L-shaped and wherein the footer is variably positionable on the bracket along the slot via a securement mechanism that is disposed through the footer and is received in the slot.....37

**C.** Claim 7: The apparatus according to claim 1, wherein the bracket includes a first ledge on the first side of the bracket and a second ledge on a second side of the bracket.....41

**D.** Claim 8: The apparatus according to claim 7, wherein the clamp includes a first wing on the first side of the clamp and a second wing on a second side of the clamp.....43

**E.** Claim 9: The apparatus according to claim 8, wherein the first photovoltaic module and the second photovoltaic module are mountable on the first side of the bracket and the first side of the clamp between the first ledge of the bracket and the first wing of the clamp. ....46

**F.** Claim 10: The apparatus according to claim 9, wherein a third photovoltaic module and a fourth photovoltaic module are mountable on the second side of the bracket and the second side of the clamp

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between the second ledge of the bracket and the second wing of the clamp, wherein the third photovoltaic module is adjacent to the fourth photovoltaic module, and wherein only a respective end portion of the third photovoltaic module and the fourth photovoltaic module is mountable in the second side of the bracket and the second side of the clamp. ....48

**G.** Claim 11: The apparatus according to claim 10, wherein the first ledge of the bracket, the second ledge of the bracket, the first wing of the clamp, and the second wing of the clamp each extend along an entire longitudinal length of the apparatus. ....50

**H.** Claim 12: The apparatus according to claim 11, wherein a plurality of attachment mechanisms secure the clamp to the bracket on the upper portion of the bracket. ....52

**I.** Claim 14: The apparatus according to claim 1, wherein the bracket defines a cavity between the upper portion of the bracket and the lower portion of the bracket. ....54

**J.** Claim 17: The apparatus according to claim 1, further comprising a trim assembly, wherein the trim assembly includes a trim and a trim mounting bracket, wherein the trim mounting bracket is mountable on

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the bracket, and wherein the trim is mountable on the trim mounting  
bracket. ....56

**K.** Claim 18: The apparatus according to claim 17, wherein a  
longitudinal length of the trim is longer than the longitudinal length of  
the bracket. ....59

**L.** Claim 20: The apparatus according to claim 17, wherein a top portion  
of the trim is electrically bonded to a top portion of the trim mounting  
bracket and wherein a bottom portion of the trim mounting bracket is  
electrically bonded to the bracket.....61

**M.** Claim 26: The apparatus according to claim 7, wherein the first ledge  
extends outwardly from the first side of the bracket and wherein the  
second ledge extends outwardly from the second side of the  
bracket.....61

**N.** Claim 27: The apparatus according to claim 1 in combination with a  
first photovoltaic module and a second photovoltaic module, wherein  
the first photovoltaic module and the second photovoltaic module are  
mounted on the first side of the bracket and the first side of the clamp  
and wherein the first photovoltaic module is adjacent to the second  
photovoltaic module.....63

**O.** Claim 28 ..... **Error! Bookmark not defined.**

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