

# GROUNDBREAKING ON A BUDGET

COMPETITORS CREATE AFFORDABLE  
INNOVATION AT THE SOLAR DECATHLON



**TWISTED IN THE TAR HEEL STATE:** North Carolina's befuddling PV market

**CONFERENCE CALL:** Our take on 2012's most important events

**PV PROGNOSTICATION:** PHOTON subjects simulation software to a reality check

Azuray Technologies, Inc.

## Power optimizers from Oregon

Azuray Technologies, Inc., based in Portland, Oregon, introducing its second stand-alone power optimizer product to the market at Solar Power International in Dallas this year. The AP 260 is a DC-to-DC converter that performs maximum power point tracking at the module level for voltages ranging from 8 to 70 V and a maximum input power of 300 W. It is similar to the AP 250, the company's first product, but it will allow for monitoring and remote shut-off currently offered only with the Azuray's junction-box integrated product, the AP 300, which debuted late last year. Azuray's products use »buck« topology, meaning they have the ability to drop the voltage on a shaded module and increase the current to match that of the rest of the system.



The AP 260, which is both UL and IEC certified, will be available worldwide.

The company also plans to introduce the AC 110, a complementary product at SPI. The AC 110 is a communications and monitoring device that will allow users to install the AP 260 only on those

modules with sub-optimal shading conditions, instead of the whole array, and put the AC 110 on the rest. *mb*

[www.azuraytech.com](http://www.azuraytech.com)

Enphase Energy Inc.

## Keeping ahead of the pack

Microinverter market leader Enphase Energy has boosted the performance of its M215 to reach 96 percent CEC efficiency, 1 point higher than a previous offering. The product hit the market this past summer. The M215 is designed to work with 60-cell modules and has a maximum power point tracking (MPPT) range of 22 to 36 V.

The new product incorporates a single bolt – instead of two – to connect the M215 to the racking, reducing installation time. A more significant change to the design, also described as a measure to speed installation, is the new proprietary Engage cabling system. The M215 system requires that the installer run an Engage cable – complete with terminals at fixed spans – along the rail for the system's AC connections. Each microinverter has a matching connector.

Enphase, which sells through a number of distributors, estimates the end-



Smaller and more efficient: the new M215 microinverter from Enphase Energy, Inc.

user price per unit of the 215 W microinverters at about \$145 to \$160. Enphase says the price at the installer level would be about \$17 per terminal.

With the introduction of this product, Enphase is no longer offering the D380 »twinpack.« The company says the product features and ease of installation

of the M215 leave no advantage to the D380. With the M215, the company has opted to match its competitors by offering a 25-year warranty. Earlier models had 15-year warranties. *mb*

[enphase.com](http://enphase.com)  
PHOTON Database Number: INV: 5277