

AlgainP LED BREAKS EFFICACY RECORD BY 26 PERCENT, SETS NEW INDUSTRY MARK

EPISTAR LAB

Epistar announces today the successful development of a new generation of Aquarius-series AlGaInP LEDs emitting at an efficacy 26 percent higher than the previously announced Mar. 15, 2010 record. The record was set by the 14x14 mil² chip in the new generation of Aquarius-series chips. This chip reaches 168 lm/W at a dominant wavelength of 610 nm driven by 20mA current (180 lm/w at 6mA). Applying Epistar LabTM's novel light-extracting technology, the new Lambertian transmission has been demonstrated to increase the efficacy from 133 lm/w to 168 lm/w. Figure 1 shows the new generation of Aquarius-series chips with higher efficacy and lower forward voltage as compared to previously announced AX14. The horizontal chip structure was designed to satisfy chip-on-board packages for lighting applications which require multiple chips in series on nonconductive substrates.

This world-leading performance promises to make these small chips a preferred choice for outdoor display, and RGB BLU applications. Furthermore, this advance allows exceptional warm white LED solutions with higher efficacy and a better color rendering index to be provided via color mixing than can be achieved through conventional conversion of blue LEDs with phosphors.

So far, this new generation of Aquarius-series AlGaInP LED has been primarily demonstrated in Epistar LabTM itself, but plans are already in motion to transfer the technology to Epistar's product line. Moreover, Epistar LabTM continues to develop higher efficacy AlGaInP LEDs enabling lighting solutions with both high CRI and high efficacy warm white light for lighting applications as well as high performance in RGB BLU. This profound product portfolio and commitment to the future of LED technology has put Epistar in the leading position for AlGaInP LED market.

About Epistar

At Epistar, we strive to be much more than a premier LED chip provider. While we are helping leading global brands actualize LED's potential, our focus remains simple and partner-oriented. Epistar's own unique "Co-Activation Service Model" allows us to work alongside our partners, so that together, we are able to satisfy every partner's clients. And with 14 years of accumulated experience and unmatched expertise, Epistar is truly equipped to help you illuminate the world in a better light.

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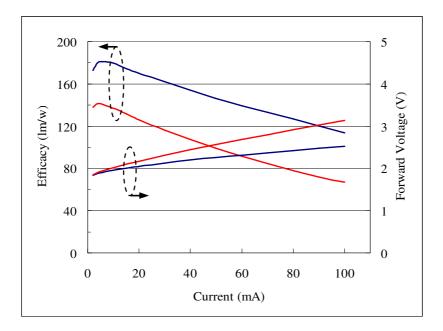


Fig. 1: New generation of Aquarius-series chips have higher efficacy and lower forward voltage as compared to previously announced AX14.

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