

## Product Change Notice

Issue Date: 13Nov2009

**Change Type:**

Avago Technologies has qualified replacement dice of InGaN blue and green die for SMT Subminiature Lamps and has changed the data sheet on the viewing angle.

**Parts Affected:**

HLMP-QM00-S0000
HLMP-QM00-S0011
HLMP-QM00-S0031
HLMP-QB00-S0000
HLMP-QB00-S0011
HLMP-QB00-TU000
HLMP-QB00-TU011
HLMP-QB00-TUC11
HLMP-QB00-TUC31

**Description and Extent of Change:**

The selected die shall be the replacement for current die using in blue and green Subminiature Lamps.

**Reasons for Change:**

To ensure the continuous supply of InGaN Subminiature Lamps.

**Effect of Change on Fit, Form, Function, Quality, or Reliability:**

There is no change in term of fit & form.

All functional remains no change as per datasheet except for the viewing angle. Please refer to below for detail.

Items	Summary
Color ( $\lambda_d$ )	No change as per datasheet.
Electrical ( $V_f$ & $V_r$ )	No change as per datasheet.
ESD Threshold Voltage	No change as per datasheet.
Optical ( $I_v$ )	Min and max $I_v$ no change as per datasheet. Typical $I_v$ for green change from bin V and W to bin U and V. Typical $I_v$ for blue change from bin T to bin T and U.
Viewing Angle	Change in Typical value, Existing = 20°; New = 12°

**Effective Date of Change:**

The shipment of this replacement dice source will begin from 10 Dec 2009 onwards.

**Qualification Data:**

Qualification has been carried on and data will be available upon request.

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These changes have been reviewed and approved by Avago Technologies engineers and managers per Avago Technologies procedure: Change Control and Customer Notification, A-5962-6052-80.

Please contact your Avago Technologies field sales engineer or Contact Center (<http://www.avagotech.com/contact/> ) for any questions or support requirements. Please return any response as soon as possible, but not to exceed 30 days.