

Title (en)  
LIGHT EMITTING DEVICES

Title (de)  
LICHTEMITTIERENDE BAUELEMENTE

Title (fr)  
DISPOSITIFS PHOTOEMETTEURS

Publication  
**EP 1590831 A2 20051102 (EN)**

Application  
**EP 04706239 A 20040129**

Priority  
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Abstract (en)  
[origin: WO2004070839A2] Electronic light emitting devices are incorporated integrally with circuit boards and printed circuits to yield high performance illumination systems. Specifically, special circuit boards having high heat conductivity are arranged to support printed circuits to which may be directly coupled light emitting diode die. Lenses are attached to the substrate- printed circuit combination by way of an indexing system such that the lenses are properly aligned to focus light into a high power output beam. Some versions incorporate a novel reflector scheme to improve coupling between light emitted from the semiconductor chip and the output beam.

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**H01L 25/075**

IPC 8 full level  
**F21K 99/00** (2010.01); **H01L 25/075** (2006.01); **H01L 33/58** (2010.01)

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4. **H01L 2224/48472 + H01L 2224/48091 + H01L 2924/00**

Citation (search report)  
See references of WO 2004070839A2

Cited by  
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