

LATERAL-TYPE BACK-LIGHT USING LIGHT EMITTING DIODE**Abstract**

A lateral-type LED back light comprises a light guide, at least one strip-shaped circuit boards, and a plurality of LEDs; wherein the LEDs are mounted on a PCB panel and have plastic material formed by epoxy filling or molding thereon; the PCB panel with LEDs is then punched or cut into a plurality of strip-shaped circuit boards which is subsequently assembled to one lateral side of the light guide. The strip-shaped circuit board and the light guide are formed integrally by mold injection or mold. The lateral-type LED back light according to the present invention can solve the problem of high thickness, high cost, and poor reliability, and can increase brightness by 30%.

Figure 4