INFRARED LED ILLUMINATOR

ABSTRACT

The present invention provides an infrared LED illuminator that has many features including high power for long distance illumination, compact in size, free from contamination, and better thermal management. The infrared LED illuminator comprises a plurality of infrared LEDs; a print circuit board (PCB) having a first surface and a second surface, wherein the first surface has patterned traces of contact pads to which said plurality of infrared LEDs are electronically connected; a thermally conducting but electrically insulating layer disposed onto the second surface of the PCB; and a heat dissipating means disposed onto the thermally conducting but electrically insulating layer, thereby the heat generated by the infrared LEDs is transmitted from the infrared LEDs through the thermally conducting but electrically insulating layer to the heat dissipating means from which the heat is dissipated to the ambient environment.

FIG 2A