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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0231088 A1**
YUN (43) **Pub. Date: Jul. 20, 2023**(54) **LIGHT SOURCE DEVICE AND CAMERA
INSPECTION DEVICE USING SAME**(71) Applicant: **LG INNOTEK CO., LTD.**, Seoul (KR)(72) Inventor: **Ji Hyun YUN**, Seoul (KR)(21) Appl. No.: **18/010,884**(22) PCT Filed: **May 10, 2021**(86) PCT No.: **PCT/KR2021/005806**

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17/002 (2013.01); **G11B 27/36** (2013.01)(57) **ABSTRACT**

The present invention relates to a light source device having minimized exposure of an LED package formed on the light source device, and a camera inspection device using same such that erroneous detections during camera inspection can be minimized. A camera inspection device according to the present invention comprises: a portable terminal cradle on which a portable terminal equipped with a camera is cradled; a light source device installed to be spaced apart from the upper portion of the portable terminal cradle by a predetermined distance and configured to emit light towards the camera; and a controller for controlling the turning on/off of the light source device and imaging operations of the camera so as to perform a light bleeding inspection of the camera mounted on the portable terminal. A light source device according to the present invention comprises: an LED package having multiple LED elements mounted on the upper surface of a printed circuit board; and an LED package cover having multiple coupling holes into which the multiple LED elements mounted on the LED package are inserted, respectively, the LED package cover covering a part of the upper surface of the printed circuit board, which is exposed between the multiple LED elements. The LED package cover having a lusterless surface is used to insert the LED elements mounted on the LED package into the coupling holes and to cover same, thereby preventing light bleeding inspection erroneous detections caused by exposure of elements, wires, or soldering parts on side surfaces of the LED elements. The LED package cover has the same height as that of the LED elements of the LED package, thereby preventing the LED elements from being damaged by exposure to the outside.

