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AN EMBEDDED LIGHT SHIELD SCHEME FOR MICRO DISPLAY BACKPLANE FABRICATION

ABSTRACT OF THE DISCLOSURE

A light shield apparatus and formation method for preventing the transmission of incident light towards active devices of the display. In one embodiment, the present invention recites patterning a second metal layer to form a plurality of second metal structures. The present embodiment also recites depositing an intermetal dielectric layer above the plurality of second metal structures. Subsequently, the present embodiment deposits a light absorbing antireflective coating material above the intermetal dielectric layer to form a light shield followed by another planarized IMD layer such that transmission of incident light towards underlying active devices is reduced. The present embodiment also performs the step of forming a plurality of metal pixels above the antireflective coating material wherein adjacent ones of the plurality of metal pixels have a gap region disposed therebetween. As a result, the antireflective coating material of the present embodiment reduces the transmission of incident light through the gap region between the plurality of metal pixels and towards the active devices of the display.

FIGURE 2A

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