ABSTRACT

RAD DEFINITION TO ACHIEVE HIGHLY REFLECTIVE PLATE WITHOUT AFFECTING BONDABILITY

A process for fabricating pixels and bonding pads wherein each has an optimal metal thickness in the fabrication of a LCD integrated circuit device is achieved. Semiconductor device structures are formed in and on a semiconductor substrate wherein the semiconductor device structures are covered by an insulating layer. A first metal layer is deposited overlying the insulating layer and patterned to form a metal line and a bonding pad. A dielectric layer is deposited overlying the metal line and the bonding pad. Vias are opened through the dielectric layer to the metal line but not to the bonding pad. A second metal layer is deposited overlying the dielectric layer and filling the via openings and etched back to form metal plugs. A third metal layer is deposited overlying the dielectric layer and metal plugs and patterned to form pixels contacting metal plugs. A passivation layer is deposited overlying the pixels. A via opening is etched through the passivation layer and the dielectric layer to the bonding pad. A wire bond is formed within the via opening to contact the bonding pad to complete the fabrication of the integrated circuit device.

(FIGURE 2 IS SUGGESTED FOR PUBLICATION)