Structure and Method For Fabricating a Bond Pad Structure

Abstract

A structure and method for an improved a bond pad structure. We provide a top wiring layer and a top dielectric (IMD) layer over a semiconductor structure. The buffer dielectric layer is formed over the top wiring layer and the top dielectric (IMD) layer. We form a buffer opening in the buffer dielectric layer exposing at least of portion of the top wiring layer. We form a barrier layer over the buffer dielectric layer, and the top wiring layer in the buffer opening. A conductive buffer layer is formed over the barrier layer. We planarize the conductive buffer layer to form a buffer pad in the buffer opening. We form a passivation layer over the buffer pad and the buffer dielectric layer. We form a bond pad opening in the passivation layer over at least a portion of the buffer pad. We form a bond pad support layer over the buffer pad and the buffer dielectric layer. We form a bond pad layer over the a bond pad support layer. The bond pad layer and the bond pad support layer are patterned to form a bond pad and bond pad support.

FIGURE 1