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ABSTRACT OF THE DISCLOSURE

The present invention generally provides a metallization process for forming a highly integrated interconnect. More particularly, the present invention provides a dual damascene interconnect module that incorporates selective chemical vapor deposition aluminum (CVD Al) via fill with a metal wire, preferably copper, formed within a barrier layer. The invention provides the advantages of having copper wires with lower resistivity (greater conductivity) and greater electromigration resistance than aluminum, a barrier layer between the copper wire and the surrounding dielectric material, void-free, sub-half micron selective CVD Al via plugs, and a reduced number of process steps to achieve such integration.

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