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(54) INTEGRATED CIRCUIT INTERCONNECT STRUCTURE HAVING DISCONTINUOUS BARRIER LAYER AND AIR GAP

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(57)ABSTRACT

A semiconductor structure includes a first dielectric layer, a first metallic feature over the first dielectric layer, an air gap over the first dielectric layer and adjacent to the first metallic feature, a second dielectric layer disposed above the air gap and on a sidewall of the first metallic feature, and a third dielectric layer disposed above the air gap and on a sidewall of the second dielectric layer. A lower portion of the first metallic feature is exposed in the air gap. The third and the second dielectric layers are substantially co-planar.

