Abstract of the Disclosure

A METHOD FOR PROCESSING IC DESIGNS FOR DIFFERENT METAL BEOL PROCESSES

[001] A method for processing IC designs for different metal BEOL processes is provided for enabling fabricating using a metal fabrication process an IC originally having a backend design for a different metal fabrication process. The method first determines layer constructions of an original design of an IC for a first metal backend process, and, based on the layer constructions of the original design of the IC, constructs primitive layer constructions of a target design of the IC for a second metal backend process. The method then tunes an effective dielectric constant of a dielectric layer of the target design to match an associated capacitance of the target backend design with a corresponding capacitance of the original backend design. The method can be used to convert a backend design of an IC from an old metal process (such as Al process) to a new metal process (such as Cu process), without redesigning the IC for the new metal BEOL fabrication process.

Figure 1