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(54) **Title**: APPARATUS AND METHOD FOR OPTIMIZED POWER CELL SYNTHESIZER

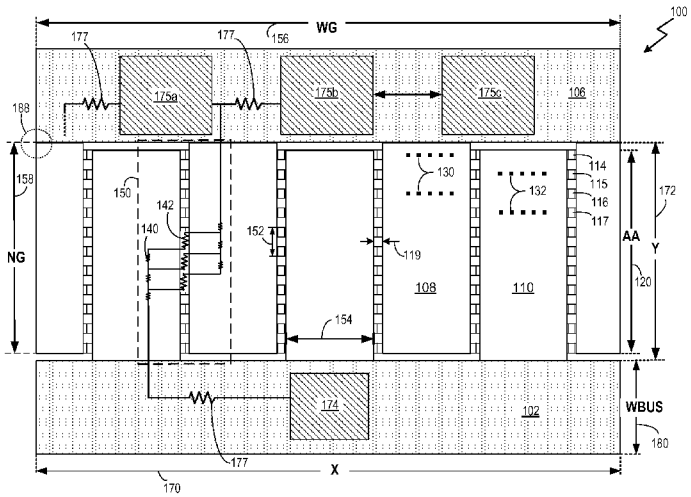

FIG. 1A

(57) **Abstract**: Apparatus for providing semiconductor device with an analysis module to receive device information, a G-function processor producing an ordered relationship representation corresponding to an optimization parameter specification, and a power cell optimizer to produce an optimization parameter from the ordered relationship representation. A method for designing a semiconductor device includes receiving an optimization target specification; receiving an optimization parameter specification corresponding to an optimization parameter; receiving a the target parameter; receiving a G-function corresponding to an ordered relationship representation; optimizing the optimization parameter specification as a function of the predetermined G-function; and producing at least one optimized geometric layout parameter (GLP) by the optimizing, wherein the at least one GLP corresponds to an optimized power cell.

WO 2012/074533 A1