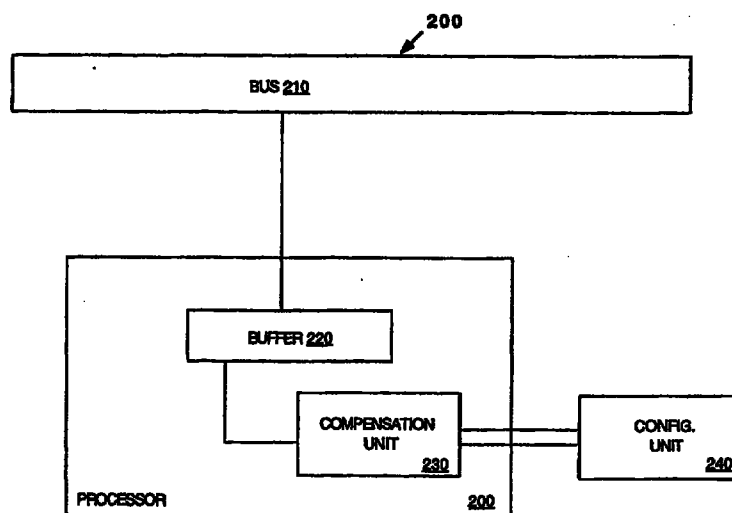




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(54) Title: PERFORMANCE OPTIMIZATION THROUGH TOPOLOGY DEPENDENT COMPENSATION

**(57) Abstract**

A method and apparatus for compensating system components based on system topology. The present invention provides a method and apparatus for performance optimization through topology dependent compensation. In one embodiment, one or more components of a computer system are coupled to a bus (210) via self-compensated buffer(s) (220). The self-compensated buffer(s) (220) allow operating characteristics to be set via external signals (650, 651, 655, 656, 660, 661, 665, 666, 670, 671, 675, 676) such as voltage levels. System components have compensation units (230) that receive external signals (650, 651, 655, 656, 660, 661, 665, 666, 670, 671, 675, 676) from a configuration unit (240) to configure the operating characteristics of the self-compensated buffer(s) (220). In this manner a system designer may set operating characteristics for various system components based on the topology of the specific system rather than designing for a worst-case scenario.