

Will Moore's Law Rule in the Land of Analog?

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Abstract

Once upon a time there was a wise and benevolent ruler whose Law multiplied his subjects' wealth and happiness--about 2X, every couple of years, but the kingdom was divided. Those in the happy hamlet of Digital got fatter (and faster), year after year. Not so the talented artisans in the town of Analog complained constantly about "voltage headroom", "variability", "noise", "matching", "kT/C limits", the rising costs of supporting their neighbors' insatiable addiction to shrinking transistors, and how the grass looked greener just over the border, in Silicon-Germania. So, what's a King to do? Will we see billion transistor chips with integrated RF made from transistors that are 25 atoms wide? Or will the peasants in the land of Analog really revolt?