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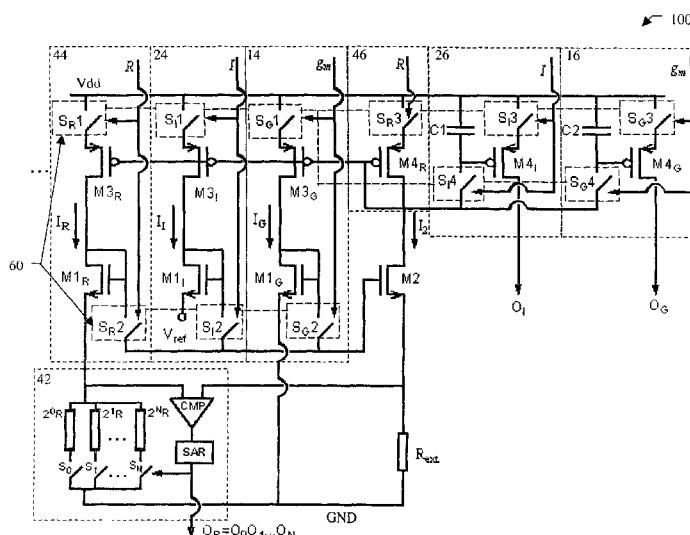
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(54) Title: SYSTEM AND METHOD FOR TUNING A VLSI CIRCUIT



(57) Abstract: A circuit (100) for accurately tuning the absolute values of multiple parameters in a VLSI circuit by reusing a single external resistor. In the illustrative embodiment, the invention includes a first circuit (10) for generating an accurate transconductance using a single external resistor; a second circuit (20) for generating an accurate current reference using the same external resistor; and a switching circuit (60) for alternately switching on and off the first and second circuits in order to share the external resistor. The switching circuit (60) includes several switches controlled by a digital counter for turning off portions of the circuit which are not in use. In the illustrative embodiment, the invention further includes a third circuit (40) for generating one or more additional accurate reference signals. The third circuit can generate an accurate internal resistance R_{int} , an accurate drain to source resistance of a transistor r_{DS} , and/or an accurate internal capacitance C_{int} .