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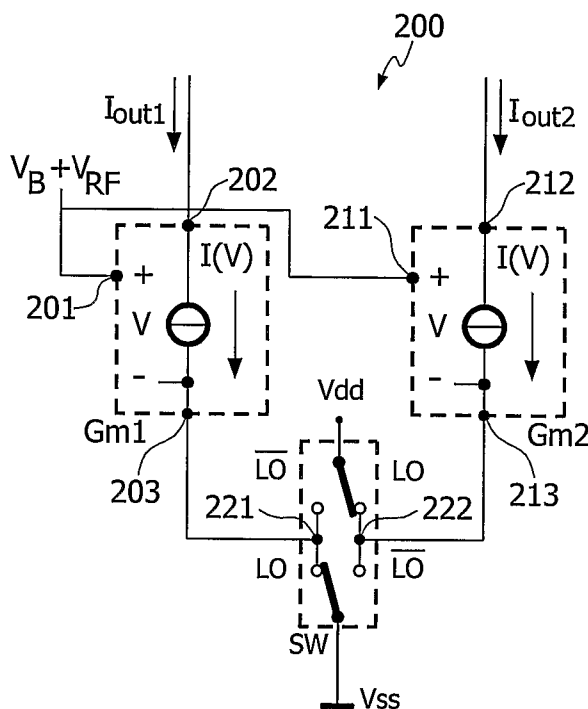
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(54) Title: MIXER CIRCUIT, RECEIVER COMPRISING A MIXER CIRCUIT, WIRELESS COMMUNICATION COMPRISING A RECEIVER, METHOD FOR GENERATING AN OUTPUT SIGNAL BY MIXING AN INPUT SIGNAL WITH AN OSCILLATOR SIGNAL



(57) Abstract: The invention relates to a mixer circuit comprising an input node for receiving an input signal, a first output node 202, and a second output node 203, voltage to current conversion means and switching means operatively coupled to each other and to the input node, the first output node and the second output node to generate a mixed input signal at the first output node and the second output node in response to an oscillator signal. In an embodiment the voltage to current conversion means comprises a first and a second voltage to current converter, implemented as N-MOSFETs M2 and M3, with their gates connected to the input node. The drain of M2 is connected to the first output node 202, while the drain of the M3 is connected to the second output node 203. The source of M2 is connected to the switching node 221, while the source of M3 is connected to the second switching node 222. The switches SW are arranged to couple the first switching node 221 to a first supply voltage VDD and the second switching node 222 to a second supply voltage VSS during a first phase of the oscillator signal, and the first switching node 221 to VSS and the second switching node 222 to VDD during a second phase of the oscillator signal. The mixer circuit according to the invention may operate at low supply voltages by using switches connected only to the supply voltages VSS and VDD. Mixing is achieved by voltage to current converters GM1 and GM2, which are alternately activated by the switches SW.

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