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(54) **SWITCHED CAPACITOR AMPLIFIER APPARATUS AND SWITCHED CAPACITOR AMPLIFYING METHOD FOR IMPROVING LEVEL-SHIFTING**

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(57) **ABSTRACT**

The present disclosure discloses a switched capacitor amplifier apparatus for improving level-shifting. An amplifier includes input terminals and output terminals. Two capacitor circuits correspond to signal input terminals and signal output terminals and each includes a sampling capacitor circuit, a load capacitor and a level-shifting capacitor. The sampling capacitor circuit samples an input signal from one of the signal input terminals to one of the input terminals. An electrical charge neutralizing capacitor is coupled between the output terminals. The load capacitor and the level-shifting capacitor are charged according to an output from one of the output terminals in an estimation period. The level-shifting capacitor charges the load capacitor in a level-shifting period to generate an output signal at one of the signal output terminals. The electrical charge neutralizing capacitor receives and provides electrical charges from the output terminals to the level-shifting capacitor respectively in the estimation period and the level-shifting period.