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**Lin et al.**(10) **Pub. No.: US 2022/0393694 A1**(43) **Pub. Date: Dec. 8, 2022**(54) **METHOD OF OPERATING  
ANALOG-TO-DIGITAL CONVERTER BY  
REVERSED SWITCHING TECHNIQUE AND  
ANALOG-TO-DIGITAL CONVERTER  
UTILIZING SAME****Publication Classification**(51) **Int. Cl.**  
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(57) **ABSTRACT**

A method of operating an analog-to-digital converter includes in a first conversion period, a comparator generating a first comparison result, a first selection circuit switching a voltage output to a first capacitor of a set of larger capacitor of a first capacitor array, and a second selection circuit switching a voltage output to a second capacitor of a set of larger capacitor of a second capacitor array, and in a second conversion period after the first conversion period, the comparator generating a second comparison result different from the first comparison result, the first selection circuit switching back the voltage output to a first capacitor portion of the first capacitor of the set of larger capacitor of the first capacitor array, and the second selection circuit switching back the voltage output to a first capacitor portion of the second capacitor of the set of larger capacitor of the second capacitor array.

