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(54) **ANALOG-TO-DIGITAL CONVERTER AND ANALOG-TO-DIGITAL CONVERSION METHOD USING THE SAME**

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(57) **ABSTRACT**

An analog-to-digital converter (ADC) includes a first comparator configured to generate a first comparison signal on a basis of a first asynchronous clock signal generated from a sampling clock signal, and a second comparator configured to generate a second comparison signal on a basis of a second asynchronous clock signal generated by a first comparison operation completion signal. The ADC includes a first control logic configured to output a first control signal on a basis of the first comparison signal and a second control logic configured to output a second control signal on a basis of the second comparison signal. The ADC includes a first reference signal adjusting circuit configured to adjust a first reference signal on a basis of the first control signal and a second reference signal adjusting circuit configured to adjust a second reference signal on a basis of the second control signal.