US 20220385296A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0385296 A1**

Ye et al. (43) **Pub. Date: Dec. 1, 2022**

(54) **CAPACITANCE-TO-DIGITAL CONVERSION CIRCUIT, A CAPACITANCE-TO-DIGITAL CONVERSION METHOD AND AN ELECTRONIC CHIP**

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(21) Appl. No.: **17/751,900**

(22) Filed: **May 24, 2022**

(30) **Foreign Application Priority Data**

May 25, 2021 (CN) 202110571568.9

Publication Classification

(51) **Int. Cl.**
H03M 1/06 (2006.01)

(52) **U.S. Cl.**
CPC ***H03M 1/0604*** (2013.01)

(57) **ABSTRACT**

Disclosed are a capacitance-to-digital conversion circuit, a capacitance-to-digital conversion method and an electronic chip. The capacitance-to-digital conversion circuit includes a first module, a comparator and an adaptive range-shift module; the first module includes a successive approximation unit, a first adder, a first digital-to-analog converter, a second adder, a third adder and an integrating unit. The first module further includes a second digital-to-analog converter connected to the third adder. The comparator, the adaptive range-shift module and the first adder are connected in series and the comparator is connected to the second digital-to-analog converter. By the present application, the adverse influence caused by the parasitic and interference is well avoided, the capacitance-to-digital conversion circuit may work in a harsh environment, the robustness of the circuit is significantly improved and the application range of the circuit is expanded.