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(19) **United States**(12) **Patent Application Publication**
WU(10) **Pub. No.: US 2022/0393681 A1**(43) **Pub. Date: Dec. 8, 2022**(54) **TOUCH DETECTION CIRCUIT WITH
DIFFERENT CHARGING AND
DISCHARGING CURRENTS AND
OPERATING METHOD THEREOF**(71) Applicant: **PixArt Imaging Inc.**, Hsin-Chu County
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(2013.01)(57) **ABSTRACT**

There is provided a touch detection circuit including a charging circuit, a discharging circuit, a counter and a processor. The charging circuit charges a detection capacitor within a charging interval using different currents. The discharging circuit discharges the detection capacitor within a discharging interval using different currents. The counter counts the charging interval and the discharging interval. The processor subtracts a baseline time from a counted charging time and a counted discharging time to cancel the noise interference.

