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Yuenyongsgool et al.

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(54) **AUTOMATIC PROTECTION AGAINST RUNT PULSES**

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See application file for complete search history.

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(*) Notice: Subject to any disclaimer, the term of this
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Related U.S. Application Data

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(57) **ABSTRACT**

(60) Provisional application No. 63/162,993, filed on Mar.
18, 2021.

An apparatus includes an adjustment circuit configured to
receive a pulsed-width modulation (PWM) input, generate
an adjusted PWM signal based upon the PWM input, and
determine that a first pulse of the PWM input is shorter than
a runt signal limit. The adjustment circuit is further config-
ured to, in the adjusted PWM signal, extend the first pulse
of the PWM input based on the determination that the PWM
input is shorter than the runt signal limit, and output the
adjusted PWM signal to an electronic device.

(51) **Int. Cl.**
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CPC **H03K 3/017** (2013.01); **G06F 1/06**
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(58) **Field of Classification Search**
CPC H03K 3/017

9 Claims, 9 Drawing Sheets

