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Gans (43) **Pub. Date: Jul. 4, 2024**(54) **APPARATUSES AND METHODS FOR
CALIBRATING ADJUSTABLE IMPEDANCES
OF A SEMICONDUCTOR DEVICE****Publication Classification**(71) Applicant: **Lodestar Licensing Group LLC**,
Evanston, IL (US)(72) Inventor: **Dean Gans**, Nampa, ID (US)(21) Appl. No.: **18/607,063**(22) Filed: **Mar. 15, 2024**(51) **Int. Cl.**
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(57) **ABSTRACT**

Apparatuses and methods for calibrating adjustable impedances of a semiconductor device are disclosed in the present application. An example apparatus includes a register configured to store impedance calibration information and further includes programmable termination resistances having a programmable impedance. The example apparatus further includes an impedance calibration circuit configured to perform a calibration operation to determine calibration parameters for setting the programmable impedance of the programmable termination resistances. The impedance calibration circuit is further configured to program the impedance calibration information in the register related to the calibration operation.

