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**CHOU et al.**(10) **Pub. No.: US 2022/0393647 A1**(43) **Pub. Date: Dec. 8, 2022**(54) **POWER DETECTOR DEVICE AND METHOD  
OF CALIBRATING DETECTION POWER  
RANGE**(52) **U.S. Cl.**CPC ..... **H03F 1/0222** (2013.01); **H03F 1/0266**  
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**ABSTRACT**(72) Inventors: **CHIEN-I CHOU, HSINCHU (TW);  
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A power detector device includes a power detector circuit, a filter circuit, and a calibration circuitry. The power detector circuit is configured to detect a first signal to generate a second signal. The filter circuit is configured to filter the second signal to generate a third signal. The calibration circuitry is configured to determine first signal strength information in response to the third signal, adjust a gain of the power detector circuit to obtain second signal strength information, and combine the first signal strength information and the second signal strength information, in order to calibrate a detection power range of the power detector circuit to be linear.

