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(54) **MULTI-GAIN STAGE CIRCUIT AND
ASSOCIATED CALIBRATION METHOD**

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(57) **ABSTRACT**

A multi-gain stage circuit is arranged to receive an input signal to generate an output signal, and includes a first gain stage, a second gain stage, a gain control circuit, and a calibration circuit. The second gain stage is connected in series with the first gain stage, and the second gain stage generates the output signal. The gain control circuit controls the first gain stage to have a first gain value such that the output signal is regarded as a product of a gain value of the second gain stage and an offset voltage of the second gain stage. The calibration circuit calculates the offset voltage of the second gain stage according to the output signal, and calibrates the second gain stage according to the offset voltage of the second gain stage calculated by the calibration circuit.

