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(54) **WIRELESS POWER TRANSMISSION
DEVICE AND OPERATION METHOD
THEREOF**

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(57) **ABSTRACT**

A wireless power transmission device includes a transmission device and a control device. The control device generates a driving signal to the transmission device in a first soft-start period, so as to drive the transmission device. The control device measures an energy message generated by the transmission device to generate a measurement result in a measurement period, and calculates a signal parameter according to the measurement result. The control device accordingly generates a carrier signal according to the signal parameter obtained by the measurement period in a second soft-start period. In a transmission period, the carrier signal is transmitted to the wireless power-receiving device through the transmission device. The energy message is generated by the transmission device in response to a distance between the transmission device and the wireless power-receiving device.

