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TANAKA et al.(10) **Pub. No.: US 2024/0235488 A1**(43) **Pub. Date: Jul. 11, 2024**(54) **POWER AMPLIFIER CIRCUIT**(71) Applicant: **Murata Manufacturing Co., Ltd.**,
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ABSTRACT

A power amplifier circuit includes: a first amplifier; a second amplifier; and an impedance inverter that delays an output of the first amplifier by a time equivalent to $\frac{1}{4}$ of a wavelength of a transmission line, and combines the output of the first amplifier delayed by the impedance inverter and an output of the second amplifier and outputs a combined output. The impedance inverter includes a plurality of unit circuits each constituted by an inductor and a capacitor, the plurality of unit circuits are cascade-connected to an output side of the first amplifier, an element included in each unit circuit of the plurality of unit circuits is connected in series to the element of an adjacent unit circuit, and another element included in each unit circuit of the plurality of unit circuits is connected between one end of the element of the same unit circuit.

