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(54) **POWER AMPLIFIER AND COMMUNICATION BASE STATION**

(71) Applicant: **ZTE CORPORATION**, Shenzhen (CN)

(72) Inventors: **Dikai LIU**, Shenzhen (CN); **Rong SHI**, Shenzhen (CN); **Pengjun LI**, Shenzhen (CN); **Lindong SONG**, Shenzhen (CN); **Dong WEI**, Shenzhen (CN)

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(57) **ABSTRACT**

Disclosed are a power amplifier, comprising a main power amplifier unit, an auxiliary power amplifier unit, an envelope acquisition unit and a power control unit, wherein input ends of both the main power amplifier unit and an input end of the auxiliary power amplifier unit are connected to an electrical signal, and output ends of the two are coupled to each other; the power control unit comprises a first power control assembly and/or a second power control assembly, at least one main power amplifier unit is connected to the electrical signal through the first power control assembly, and a control end of the first power control assembly is connected to the envelope acquisition unit; and at least one auxiliary power amplifier unit is connected to the electrical signal through the second power control assembly, and a control end of the second power control assembly is connected to the envelope acquisition unit.