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HASHINAGA(10) **Pub. No.: US 2022/0416727 A1**(43) **Pub. Date: Dec. 29, 2022**(54) **AMPLIFIER CIRCUIT****Publication Classification**(71) Applicant: **SUMITOMO ELECTRIC INDUSTRIES, LTD.**, Osaka (JP)(72) Inventor: **Tatsuya HASHINAGA**, Osaka-shi (JP)(73) Assignee: **SUMITOMO ELECTRIC INDUSTRIES, LTD.**, Osaka (JP)(51) **Int. Cl.****H03F 1/06** (2006.01)**H03F 3/54** (2006.01)**H03F 1/14** (2006.01)(52) **U.S. Cl.**CPC **H03F 1/06** (2013.01); **H03F 3/54** (2013.01); **H03F 1/14** (2013.01)(21) Appl. No.: **17/726,667**(22) Filed: **Apr. 22, 2022**(30) **Foreign Application Priority Data**

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ABSTRACT

An amplifier circuit includes a first amplifier that amplifies a high frequency signal, and a load circuit that changes a load impedance of the first amplifier without being controlled by an external circuit so that a saturation power at a first temperature is higher than a saturation power at a second temperature lower than the first temperature, and an efficiency at the first temperature is lower than an efficiency at the second temperature.

