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TSUDA et al.(10) **Pub. No.: US 2023/0231582 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **RADIO FREQUENCY MODULE AND
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NAKAMURA**, Kyoto (JP)(21) Appl. No.: **18/187,994**(22) Filed: **Mar. 22, 2023****Related U.S. Application Data**(63) Continuation of application No. PCT/JP2021/
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ABSTRACT

A radio frequency module includes a module substrate; a power amplifier disposed on or over the module substrate, amplifies a radio frequency signal, and outputs the amplified radio frequency signal as the first transmission signal; a power amplifier disposed on or over the module substrate, amplifies a radio frequency signal, and outputs the amplified radio frequency signal as the second transmission signal; a temperature sensor disposed on or over the module substrate; and a PA control circuit disposed on or over the module substrate and controls amplification operations of the power amplifiers according to a measurement value of the temperature sensor. The maximum output power of the power amplifier is greater than the maximum output power of the power amplifier, and the distance between the temperature sensor and the power amplifier is less than or equal to the distance between the temperature sensor and the power amplifier.

