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HE et al.(10) **Pub. No.: US 2022/0416732 A1**(43) **Pub. Date: Dec. 29, 2022**(54) **MULTI-FREQUENCY LOW NOISE
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ABSTRACT

A multi-frequency low noise amplifier includes an input matching network, an amplifying circuit and an output matching network. The input matching network includes a first out-of-band rejection circuit and a first frequency band selection circuit. The output matching network includes a second out-of-band rejection circuit and a second frequency band selection circuit. The first out-of-band rejection circuit can reject signal of any frequency band in the radio frequency signals so that signals of the remaining frequency bands can pass through. The first frequency band selection circuit can screen out the signals of reference frequency spots from the remaining frequency bands. The second frequency band selection circuit can screen out the signals of partial frequency spots from the amplified signals of reference frequency spots. The second out-of-band rejection circuit can reject the signal of any frequency spot in the signals of partial frequency spots.

