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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0352861 A1**  
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AUTOMATIC GAIN CONTROL CIRCUIT  
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(57)

**ABSTRACT**

In one embodiment, an apparatus includes: a low noise amplifier (LNA) to receive and amplify a radio frequency (RF) signal, the LNA having a first controllable gain; a mixer to downconvert the RF signal to a second frequency signal; a programmable gain amplifier (PGA) coupled to the mixer to amplify the second frequency signal, the PGA having a second controllable gain; a digitizer to digitize the second frequency signal to a digitized signal; a demodulator coupled to the digitizer to demodulate the digitized signal; an automatic gain control (AGC) circuit to control one or more of the first controllable gain and the second controllable gain; and an AGC settling circuit to cause the demodulator to begin operation in response to determining that the AGC circuit has settled.

