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Lehtola et al.(10) **Pub. No.: US 2022/0385237 A1**(43) **Pub. Date: Dec. 1, 2022**(54) **LOAD MODULATED POWER AMPLIFIERS**(52) **U.S. Cl.**(71) Applicant: **Skyworks Solutions, Inc.**, Irvine, CA
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2200/451 (2013.01); **H03F 2200/102** (2013.01)(72) Inventors: **Philip John Lehtola**, Cedar Rapids, IA
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Apparatus and methods for load modulated power amplifiers are provided. In certain embodiments, a load modulated power amplifier system includes a power amplifier that receives a radio frequency signal at an input and provides an amplified radio frequency signal at an output, and a controllable load impedance coupled to the output of the power amplifier. The controllable load impedance receives an envelope signal that changes in relation to an envelope of the radio frequency signal, and the envelope signal is operable to control an impedance of the controllable load impedance to modulate a load at the output of the power amplifier.

