

LOAD MODULATED DOHERTY POWER AMPLIFIERS

ABSTRACT OF THE DISCLOSURE

Load modulated Doherty power amplifiers are provided herein. In certain embodiments, a load modulated Doherty power amplifier includes a combiner, a carrier amplifier having an output coupled to a first terminal of the combiner, a peaking amplifier having an output coupled to a second terminal of the combiner, a load modulating amplifier having an output coupled to a third terminal of the combiner, and a radio frequency (RF) output port that is coupled to a fourth terminal of the combiner and provides an RF output signal. The peaking amplifier is operable to activate at a first power threshold, while the load modulating amplifier is operable to activate at a second power threshold to modulate down a load of the carrier amplifier and of the peaking amplifier.

[No Suitable Figure]