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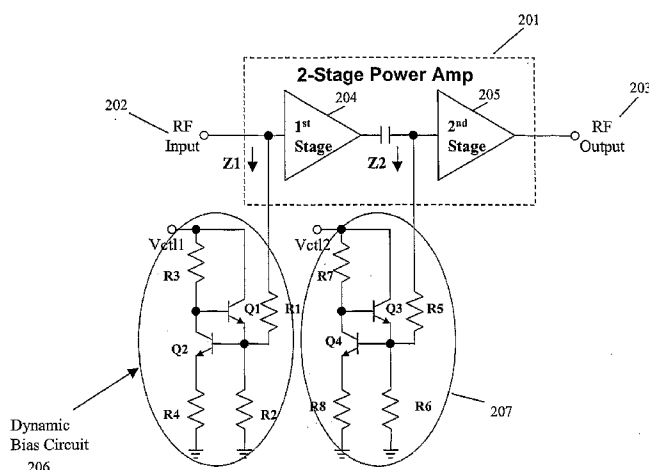


Fig. 2

(57) Abstract: A power amplifier subsystem that includes a first stage amplifier and a second stage amplifier. A first bias circuit is coupled to the first stage amplifier, and the first bias circuit has a variable impedance that increases with radio frequency (RF) power. A second bias circuit is coupled to the second stage amplifier, and the second bias circuit has impedance relatively fixed with respect to radio frequency (RF) power. According to an embodiment of the invention, the first bias circuit comprises a transistor having a collector current that increases as radio frequency (RF) power increases. The second bias circuit can have a relatively fixed impedance. A method of designing an amplifier subsystem, where transistor size and resistor values are selected to obtain the desired bias and linearity characteristics, or transistor size and resistor values are selected to operate within a selected range, and amplifier performance is adjusted by changing the bias control voltage.

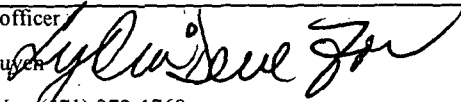


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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 6,518,843 B1 (FUJITA) 11 February 2003 (11.02.2003), Fig. 9.	1,3,4,7 ----- 2,5,6
X --- Y	US 6,236,266 B1 (CHOUMEI et al) 22 May 2001 (22.05.2001), Figures 1 and 6.	3,5- 8,11,12,14,15,18,20,21, 23 ----- 13,17
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