Title: RADIO FREQUENCY POWER AMPLIFIER ACTIVE SELF-BIAS COMPENSATION CIRCUIT

Abstract: An active bias compensation circuit for use with a radio frequency ("RF") power amplifier, the RF amplifier having an input (112), an output (116), a first transistor (110), and a plurality of operating performance characteristics responsive to a quiescent operating point established by a bias current in the RF amplifier. The active bias compensation circuit includes: a second transistor (120) operatively coupled to the RF amplifier and having a first, second and third terminal and further configured to have essentially the same electrical and thermal characteristics as the first transistor; and a first circuit (130) coupled between the first and second terminal of the second transistor for causing a desired quiescent operating current to be set and maintained in said RF power amplifier, independent of factors such as temperature and process variation.
INTERNATIONAL SEARCH REPORT

International application No.
PCT/US03/36277

A. CLASSIFICATION OF SUBJECT MATTER
   IPC(7) : H03F 3/04, 1/30
   US CL : 330/296, 290
   According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
   U.S. : 330/296, 290, 291

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
   NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
   EAST, PLUS search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 6,046,642 A (BRAYTON et al) 04 April 2000 (04.04.2000), Fig. 1.</td>
<td>1-5, 8, 10</td>
</tr>
<tr>
<td>X, P</td>
<td>US 6,515,546 B2 (LIWINSKI) 04 February 2003 (04.02.2003), Fig. 2.</td>
<td>1-5, 7, 8, 10</td>
</tr>
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</table>

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
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Date of the actual completion of the international search

Date of mailing of the international search report
   15 JUN 2004

Name and mailing address of the ISA/US
   Mail Stop PCT, Attn: ISA/US
   Commissioner for Patents
   P.O. Box 1450
   Alexandria, Virginia 22313-1450
   Facsimile No. (703) 305-3230

Authority officer
   Patricia Nguyen
   Telephone No. (571) 272-1768

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