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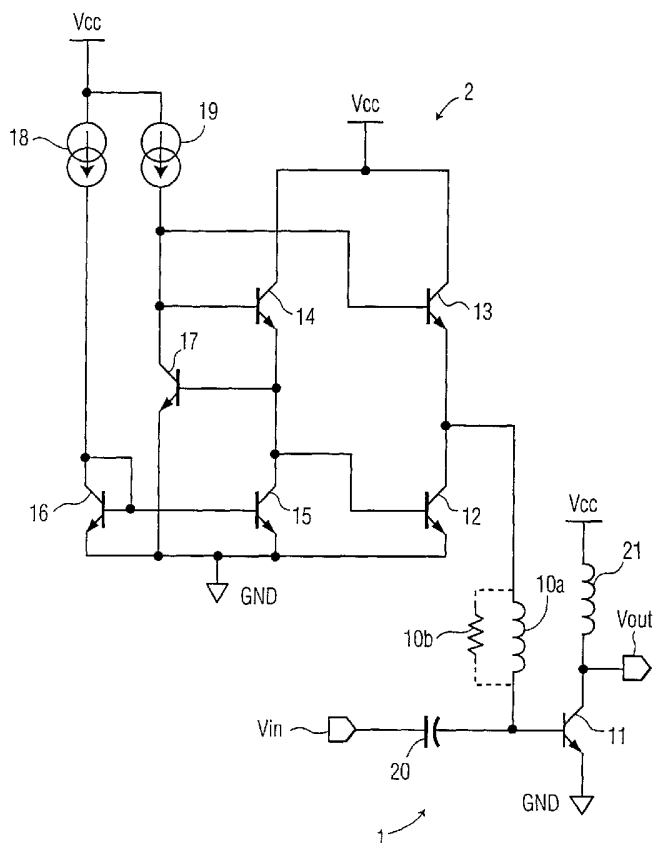
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- (72) Inventors: LUO, Sifen; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). SOWLATI, Tirdad; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HIGH-FREQUENCY AMPLIFIER CIRCUIT WITH INDEPENDENT CONTROL OF QUIESCENT CURRENT AND BIAS IMPEDANCE



(57) Abstract: A high-frequency amplifier circuit includes an amplifying transistor and a bias circuit coupled to the amplifying transistor. The bias circuit includes a first bias subcircuit for controlling a quiescent current in the amplifying transistor and a second bias subcircuit for independently controlling a bias impedance of the amplifying transistor. Using this configuration, it is possible to set the gain and class of operation of the amplifying transistor, while independently controlling the bias impedance of the amplifying transistor to obtain improved linearity and tuning capability as well as increased efficiency.

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INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP 01/07844

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H03F1/30

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)  
IPC 7 H03F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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

EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 3 903 479 A (LIMBERG ALLEN LEROY) 2 September 1975 (1975-09-02) column 9, line 26 -column 10, line 61; figures 4,5	1-6
Y	US 5 828 269 A (LUO SIFEN ET AL) 27 October 1998 (1998-10-27) cited in the application column 2, line 27 -column 5, line 3; figure 1	1-6
A	US 4 924 194 A (OPAS GEORGE F ET AL) 8 May 1990 (1990-05-08) column 1, line 62 -column 3, line 22; figure 1	1-6

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

national Application No  
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3903479	A	02-09-1975	NONE	
US 5828269	A	27-10-1998	NONE	
US 4924194	A	08-05-1990	NONE	