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(51) International Patent Classification 6 : **H03F 3/19**	**A3**	**(11) International Publication Number:** **WO 95/30272** **(43) International Publication Date:** 9 November 1995 (09.11.95)

(21) International Application Number: PCT/IB95/00258

(22) International Filing Date: 12 April 1995 (12.04.95)

(30) Priority Data:
08/230,351 20 April 1994 (20.04.94) US

(71) Applicant: PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(71) Applicant *(for SE only)*: PHILIPS NORDEN AB [SE/SE]; Kottbygatan 5, Kista, S-164 85 Stockholm (SE).

(72) Inventors: WONG, Stephen; 117 Walworth Avenue, Scarsdale, NY 10583 (US). GARCIA, Jose; 6502 Durham Avenue, North Bergen, NJ 07047 (US).

(74) Agent: SCHOONHEIM, Harry, Barend; Internationaal Octrooibureau B.V., P.O. Box 220, NL-5600 AE Eindhoven (NL).

(81) Designated States: CN, JP, KR, SG, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

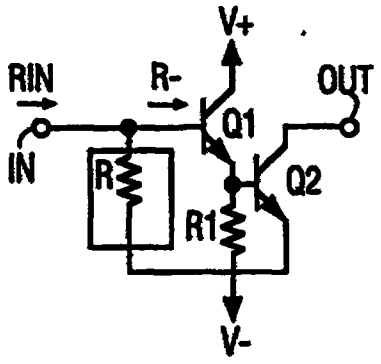
(88) Date of publication of the international search report:
11 January 1996 (11.01.96)

SG 9611732-0

(54) Title: NEGATIVE-RESISTANCE-COMPENSATED MICROWAVE BUFFER

(57) Abstract

A monolithic microwave buffer amplifier is adapted to increase its input impedance at microwave frequencies. Capacitive reactances in first and second stages of the buffer amplifier appear collectively at the input of the first stage as a negative resistance. Compensating positive resistance is electrically connected to the input of the first stage to cancel the negative resistance and provide a sufficiently high resistive input impedance.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB 95/00258

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H03F 3/19
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)

IPC6: 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 practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5012203 A (JAMES B. BEYER ET AL), 30 April 1991 (30.04.91), see whole document	1-7
A	US 4309676 A (HUBERT MARTIN ET AL), 5 January 1982 (05.01.82), see whole document	1-7
A	US 4107621 A (NAGAHISA FURUTANI ET AL), 15 August 1978 (15.08.78), see whole document	1-7
A	US 3693105 A (LEONARD L. KLEINBERG), 19 Sept 1972 (19.09.72), see whole document	1-7

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
7 December 1995	08 -12- 1995
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86	Authorized officer Stig Edhborg Telephone No. +46 8 782 25 00

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB 95/00258

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2268649 A (TEXAS INSTRUMENTS LIMITED), 12 January 1994 (12.01.94), see whole document --	1-7
A	IEEE JOURNAL OF SOLID-STATE CIRCUITS, Volume 25, No 1, February 1990, T. WAKIMOTO ET AL, "A Long-Power Wide-Band Amplifier Using a New Parasitic Capacitance Compensation Technique" page 200 - page 206 --	1-7
A	IBM Technical Disclosure Bulletin, Volume 32, No 8A, January 1990, "Optimized VLSI CMOS Bypass Capacitor" page 260 - 262 -- ---	1-7

INTERNATIONAL SEARCH REPORT

Information on patent family members

30/10/95

International application No.
PCT/IB 95/00258

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US-A- 5012203	30/04/91	NONE	
US-A- 4309676	05/01/82	NONE	
US-A- 4107621	15/08/78	DE-A,B,B 2725719	22/12/77
		FR-A,B- 2355398	13/01/78
		GB-A- 1577467	22/10/80
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		JP-A- 52153364	20/12/77
		JP-B- 56020721	15/05/81
US-A- 3693105	19/09/72	NONE	
GB-A- 2268649	12/01/94	NONE	