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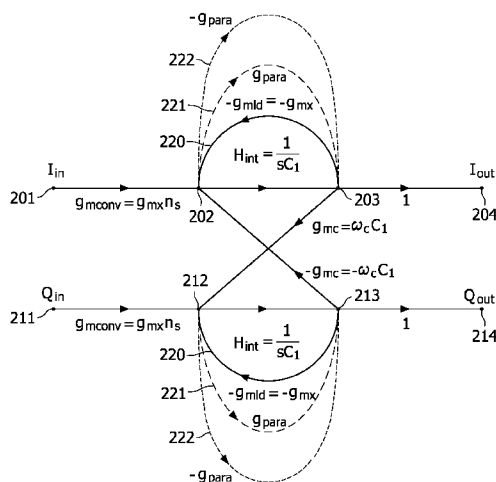
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(54) Title: RADIO RECEIVER



(57) Abstract: There is provided a method that comprises identifying a parasitic signal transfer in a filter using a signal-directed graph; and adding compensation paths to the filter to reduce or eliminate the effect of the parasitic signal transfer. A corresponding filter is provided which comprises a plurality of amplifier stages that generate one or more filter poles; at least one component coupled to at least one of the amplifier stages, the component causing a parasitic effect in the filter; and means for applying a compensation current to the at least one amplifier stage to reduce or eliminate the parasitic effect. A radio receiver is further provided that comprises a filter for receiving and filtering in-phase and quadrature signals; an amplifier for receiving and amplifying one of said filtered in-phase and quadrature signals; means for receiving the amplified and filtered in-phase or quadrature signal from said amplifier, and for regenerating the other one of said in-phase and quadrature signals from said amplified and filtered signal.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
INV. H04B1/10 H03H21/00 H03H11/00

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)
H04B H03H

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, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>NEUGEBAUER T C ET AL: "Parasitic capacitance cancellation in filter inductors" POWER ELECTRONICS SPECIALISTS CONFERENCE, 2004. PESC 04. 2004 IEEE 35TH ANNUAL AACHEN, GERMANY 20-25 JUNE 2004, PISCATAWAY, NJ, USA, IEEE, US, 20 June 2004 (2004-06-20), pages 4102-4107, XP010739399 ISBN: 0-7803-8399-0 the whole document</p> <p style="text-align: center;">----- -/--</p>	1-4

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	HITOSHI WATANABE ET AL: "Soul of Circuit Theory-A Review on Research Activities of Graphs and Circuits in Japan" IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I: FUNDAMENTAL THEORY AND APPLICATIONS, IEEE INC. NEW YORK, US, vol. 45, no. 1, January 1999 (1999-01), XP011011680 ISSN: 1057-7122 the whole document	1-4
X	----- BRIAN GUTHRIE, JOHN HUGHES, TONY SAYERS, ADRIAN SPENCER: "a CMOS Gyrator low-IF Filter for a Dual-Mode Bluetooth/ZigBee Transceiver" IEEE JOURNAL OF SOLID-STATE CIRCUITS, vol. 40, no. 9, September 2005 (2005-09), pages 1872-1879, XP011138483 the whole document	5-7,11
Y	----- "An Image-Rejection Down-Converter for Low-IF Receivers" IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol. 53, no. 2, February 2005 (2005-02), pages 478-487, XP002443709 the whole document	8
Y	----- "An Image-Rejection Down-Converter for Low-IF Receivers" IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol. 53, no. 2, February 2005 (2005-02), pages 478-487, XP002443709 the whole document	8
Y	----- WO 03/065602 A (QUALCOMM INC [US]) 7 August 2003 (2003-08-07) paragraph [0006] paragraph [0032] - paragraph [0035] paragraph [0040] figure 2 -----	1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2007/050777

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-14

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-14

A filter comprising at least one component causing a parasitic effect in the filter and means for applying compensation to eliminate or reduce the parasitic effect.

2. claims: 15-21

A radio receiver comprising a filter for filtering in-phase and quadrature signals, an amplifier for amplifying one of said filtered signals and means for regenerating the other one of said signals from said amplified signal.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/IB2007/050777
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