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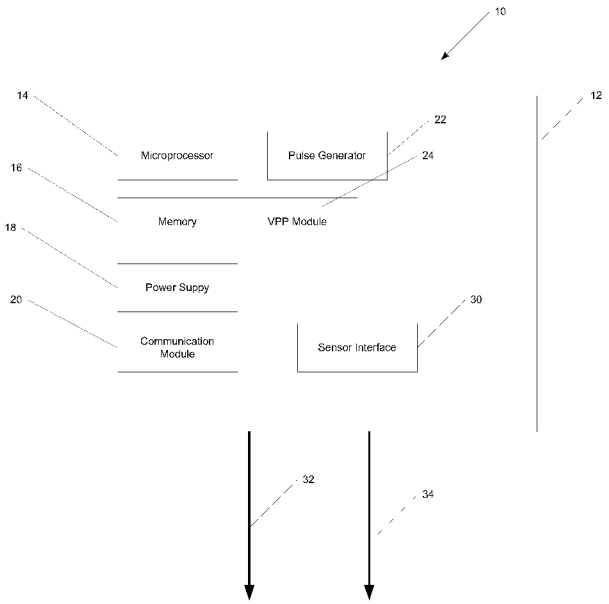
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[Continued on next page]

(54) **Title:** SYSTEM AND METHOD FOR DETERMINING INTRINSIC AV INTERVAL TIMING



(57) **Abstract:** An atrial based pacing protocol promotes intrinsic conduction. An entire cardiac cycle is monitored for ventricular activity and permitted to lapse with ventricular activity. Ventricular pacing is available in a cardiac cycle immediately subsequent to such a skipped beat. When monitoring for intrinsic ventricular events, an event is expected within a given window. If no such event is detected, the cardiac cycle in truncated, leading to a shorter cycle that is devoid of ventricular activity. The subsequent cycle has a high likelihood of a ventricular sensed event and a greater than normal AV interval is provided prior to pacing.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
INV. A61N1/368

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)
A61N

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.
X	US 5 626 623 A (KIEVAL ROBERT S [US] ET AL) 6 May 1997 (1997-05-06) abstract column 3, line 58 - column 4, line 9 column 4, lines 40-49 column 9, line 51 - column 10, line 15 column 11, line 40 - column 12, line 11 column 12, line 42 - column 13, line 2	7-9
X	US 5 372 607 A (STONE KAREN A [US] ET AL) 13 December 1994 (1994-12-13) abstract column 7, line 56 - column 8, line 53 column 12, lines 28-40 column 15, lines 50-62 column 16, lines 4-28 column 25, line 1 - column 26, line 12	7-9

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

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"E" earlier document but published on or after the international filing date

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"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

Date of the actual completion of the international search	Date of mailing of the international search report
17 December 2007	27/12/2007

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INTERNATIONAL SEARCH REPORT

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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.
X	US 6 792 307 B1 (LEVINE PAUL A [US] ET AL) 14 September 2004 (2004-09-14) column 3, lines 12-62 column 8, line 55 - column 9, line 6	7-9
X	EP 0 624 386 A (SIEMENS AG [DE]) 17 November 1994 (1994-11-17) the whole document	7-9

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/074458

Box No. 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. [X] Claims Nos.: 1-6, 10-19
because they relate to subject matter not required to be searched by this Authority, namely:

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

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 No. 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:

1. [ ] As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.

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

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers 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.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

[ ] The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

[ ] No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
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