# (19) World Intellectual Property Organization International Bureau

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- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KRAMPF, Steven, S. [US/US]; 77 Eliot Street, Chestnut Hill, MA 02467 (US). ROSS, Evan, B. [US/US]; 70 Austin St., Newtonville, MA 02460 (US). PHUNG, Trung, Quoc [US/US]; 140 Birch St. #2, Roslindale, MA 02131 (US).

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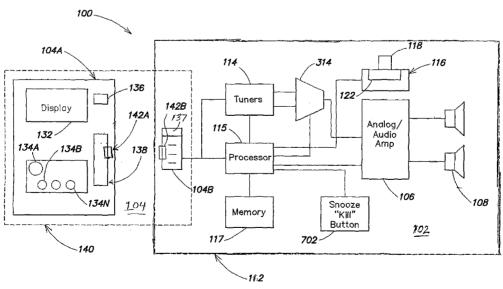
- (74) Agent: HENRY, Steven, J.; WOLF, GREENFIELD & SACKS, P.C., 600 Atlantic Avenue, Boston, MA 02210 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
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#### **Published:**

with international search report

[Continued on next page]

(54) Title: ENTERTAINMENT SYSTEM WITH BANDLESS TUNING, REMOTE CONTROL, ALARM AND UNIVERSAL DOCKING



(57) Abstract: An entertainment system comprising a base unit with a transceiver for interacting, at times, with a control unit via a communications link, and a control unit for controlling the base unit, the control unit being dockable with the base unit to establish direct electrical connection between them, and including a transceiver for interacting with the control unit via said link when undocked. The control unit is a separate aspect of the invention or system. The base unit may contain a tuner, preferably with bandless tuning capability, and may be designed to receive into a universal docking arrangement a digitally controllable auxiliary audio source such as a portable MP3 player or other device. The base unit may further provide alarm clock functionality with numerous features including a "fail-safe" volume control system and fail-safe alarm time setting capability.



## WO 2007/022297 A3



 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments 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.

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19 April 2007

#### INTERNATIONAL SEARCH REPORT

International application No PCT/US2006/032029

A. CLASSIFICATION OF SUBJECT MATTER INV. H04B1/08

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{H04B} & \mbox{B60R} & \mbox{H03J} \end{array}$ 

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

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
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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:  "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 filling 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   | <ul> <li>"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</li> <li>"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</li> <li>"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.</li> <li>"&amp;" document member of the same patent family</li> </ul> |  |  |  |  |  |  |
| Date of the actual completion of the international search  | Date of mailing of the international search report  |  |  |  |  |  |  |
| 30 January 2007  | 15/02/2007  |  |  |  |  |  |  |
| Name and mailing address of the ISA/   | Authorized officer  |  |  |  |  |  |  |
| European Patent Office, P.B. 5818 Patentlaan 2<br>NL – 2280 HV Piijswijk<br>Tel. (+31–70) 340–2040, Tx. 31 651 epo nl,<br>Fax: (+31–70) 340–3016   | Kolbe, Werner   |  |  |  |  |  |  |
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## INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/032029

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International application No. PCT/US2006/032029

## INTERNATIONAL SEARCH REPORT

| Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sneet)  |
|---|
| 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:  |
| 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  |
|   |
| 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. X 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.:  1-15, 19-22      |
| 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.  X  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: 1-4

Entertainment system comprising a base station and a dockable control interacting via a bidirectional wireless link

2. claims: 10-13,19-22

Radio tuning interface presenting frequency bands as continuous succession such that no band selection has to be made

3. claims: 5-9,14-15

Adaptor module for an auxiliary audio signal source having two connectors and interconnections between corresponding terminals of the two connectors

4. claims: 16-18

Alarm clock/radio combination having independent volume settings in the radio mode and the alarm mode  $% \left( 1\right) =\left( 1\right) +\left( 1$ 

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2006/032029

| Patent docu<br>cited in search |        |            | Publication<br>date |  | Patent family<br>member(s)  |                                   | Publication<br>date  |
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