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(71) Applicant (for all designated States except US): ZENSYS A/S [DK/DK]; Emdrupvej 26, DK-2100 Copenhagen Ø (DK).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): CHRISTENSEN, Carlos, Mélia [DK/DK]; Østbanegade 3, 4., DK-2100 Copenhagen Ø (DK). KNUDSEN, Jesper [DK/DK]; Belvederevej 34, DK-3000 Elsinore (DK).
- (74) Agent: PLOUGMANN & VINGTOFT A/S; Sankt Annæ Plads 11, P.O. Box 3007, DK-1021 Copenhagen K (DK).

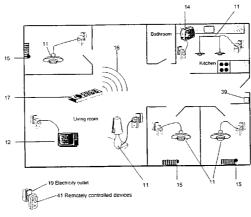
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(54) Title: RF HOME AUTOMATION SYSTEM COMPRISING NODES WITH DUAL FUNCTIONALITY



(57) Abstract: The present invention relates to a wireless home automation system having a controller for controlling a broad variety of functions via two ways communication with a plurality of devices. More specifically, the invention relates to a new and flexible way of establishing a wireless network by using devices which functions as both input/output devices and repeaters. By establishing an even distribution of dual-functionality devices, the user can reach any device without use of dedicated repeater stations. The controllers and devices of the system comprises means for generating a signal comprising a destination identifier, instructions related to the input/output of the destination or source device, and a repeater identifier. The devices according to the invention are adapted to act as input/output devices and signal repeating devices in that the processors of each device comprises means for, upon reception of a signal, processing said information in its processor if the destination identifier corresponds to the device identifier of the device, and means for, upon reception of a signal, transmitting a second signal holding at least said destination identifier and said instruction if the repeater identifier corresponds to the device identifier of the device.



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.

INTERNATIONAL SEARCH REPORT

Inte onal Application No PCT/DK 01/00253

a. classification of subject matter IPC 7 G05B19/418 H04I H04B7/15 H04L12/28 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) G05B H04B H04L G06F H04Q IPC 7 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 Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category WO 97 32419 A (PHILIPS ELECTRONICS NV) 1-21 Χ 4 September 1997 (1997-09-04) page 1, line 22 -page 4, line 31 page 6, line 14 -page 7, line 21 page 8, line 17 -page 12, line 7; claims 1-8.12-15,24-27,30; figures 1,2 abstract US 5 479 400 A (DILWORTH ROBERT P ET AL) 1-3. X 15-17 26 December 1995 (1995-12-26) column 1, line 58 -column 2, line 18; claims 1-3 abstract Further documents are listed in the continuation of box C. Х Patent family members are listed in annex. ΙXΙ ° Special categories of cited documents : "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 "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 "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "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) "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 docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means "P" document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 0 7, 12, 2001 23 October 2001 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Elisabet Aselius Fax: (+31-70) 340-3016

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