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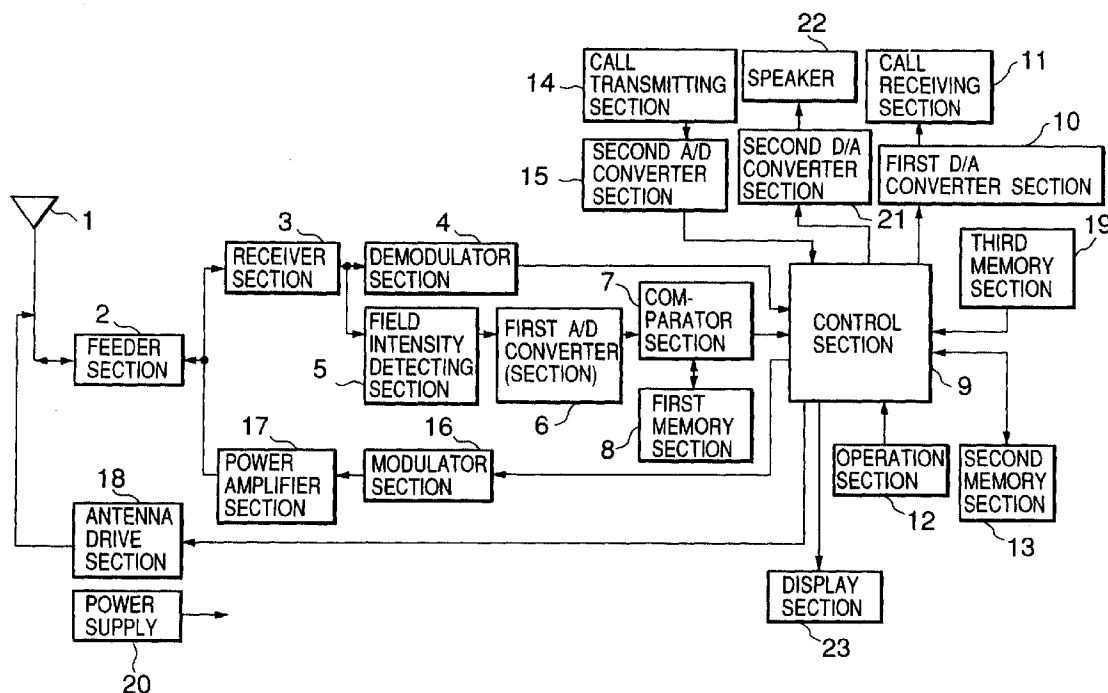
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(54) **Device for controlling expansion/contraction of an antenna in a radio unit and method therefor**

(57) An antenna control device for a radio unit automatically expands an antenna in response to the detection of a call, and automatically contracts the antenna

when the call is terminated. Also, the device automatically expands the antenna in response to a call reception.

**Fig.1****EP 0 800 227 A3**



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# EUROPEAN SEARCH REPORT

Application Number  
EP 97 30 2220

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                           |                                                                                                                                         |                                                                                                                                                                                                                                                                              |                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Category                                                                                                                                                                                                                                                      | Citation of document with indication, where appropriate, of relevant passages                                                           | Relevant to claim                                                                                                                                                                                                                                                            | CLASSIFICATION OF THE APPLICATION (InCL6) |
| 5 X                                                                                                                                                                                                                                                           | PATENT ABSTRACTS OF JAPAN<br>vol. 96, no. 5, 31 May 1996<br>& JP 08 023219 A (MITSUBISHI ELECTRIC),<br>23 January 1996,<br>* abstract * | 1,3,5,7,<br>11,13,<br>15,17                                                                                                                                                                                                                                                  | H01Q1/08<br>H01Q1/24<br>H04B1/38          |
| Y                                                                                                                                                                                                                                                             | ---                                                                                                                                     | 2,4,6,<br>8-10,14,<br>16,18                                                                                                                                                                                                                                                  |                                           |
| 4 Y                                                                                                                                                                                                                                                           | US 5 497 506 A (TAKEYASU) 5 March 1996<br><br>* the whole document *                                                                    | 2,4,6,<br>8-10,14,<br>16,18                                                                                                                                                                                                                                                  |                                           |
| 4 A                                                                                                                                                                                                                                                           | EP 0 689 299 A (NEC) 27 December 1995<br><br>* claims 1-10; figures 1-4 *                                                               | 1,3,5,7,<br>11,13,<br>15,17                                                                                                                                                                                                                                                  |                                           |
| 4 A                                                                                                                                                                                                                                                           | GB 2 255 448 A (MATSUSHITA ELECTRIC<br>INDUSTRIAL) 4 November 1992<br><br>* abstract; figures 1-2B *                                    | 1,3,5,7,<br>11,13,<br>15,17                                                                                                                                                                                                                                                  | TECHNICAL FIELDS<br>SEARCHED (Int.Cl.6)   |
| 4 A                                                                                                                                                                                                                                                           | WO 93 18591 A (MOTOROLA) 16 September 1993<br>* abstract; figure *                                                                      | 1,3,5,7                                                                                                                                                                                                                                                                      | H01Q<br>H04B<br>H04M                      |
| The present search report has been drawn up for all claims                                                                                                                                                                                                    |                                                                                                                                         |                                                                                                                                                                                                                                                                              |                                           |
| Place of search<br><b>THE HAGUE</b>                                                                                                                                                                                                                           |                                                                                                                                         | Date of completion of the search<br><b>18 May 1998</b>                                                                                                                                                                                                                       | Examiner<br><b>Angrabeit, F</b>           |
| <b>CATEGORY OF CITED DOCUMENTS</b><br>X : particularly relevant if taken alone<br>Y : particularly relevant if combined with another document of the same category<br>A : technological background<br>O : non-written disclosure<br>P : intermediate document |                                                                                                                                         | T : theory or principle underlying the invention<br>E : earlier patent document, but published on, or after the filing date<br>D : document cited in the application<br>L : document cited for other reasons<br>& : member of the same patent family, corresponding document |                                           |

EPO FORM 1503 03/82 (P04C01)