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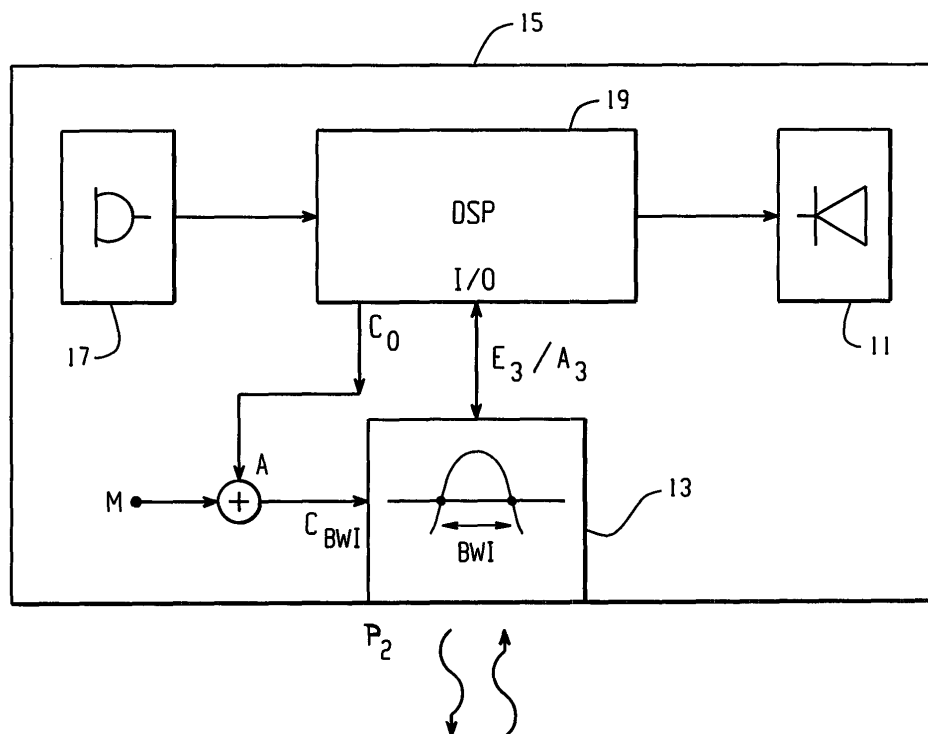
(72) Inventors:  
 • **Hänggi, Stefan**  
**3280 Murten (CH)**  
 • **Bächler, Herbert**  
**8706 Meilen (CH)**

(74) Representative: **Troesch Scheidegger Werner AG**  
**Schwäntenmos 14**  
**8126 Zumikon (CH)**

(71) Applicant: **Phonak AG**  
**8712 Stäfa (CH)**

(54) **Antenna arrangement and hearing device and method for making a wireless communication link**

(57) So as to adapt an antenna arrangement (13) for RF-signal transmission in a hearing device (5) to different needs of different types of signal-transmission, the bandwidth BW of the antenna arrangement (13) is manually (M) and/or automatically (A) adjusted.



*Fig. 6*

**EP 1 672 957 A3**



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# EUROPEAN SEARCH REPORT

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| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                              |                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Category                                                                                                                                                                                                                                               | Citation of document with indication, where appropriate, of relevant passages                                                                                                                                                                    | Relevant to claim                                                                                                                                                                                                                                                            | CLASSIFICATION OF THE APPLICATION (IPC) |
| X                                                                                                                                                                                                                                                      | WO 2004/110099 A (GN RESOUND A/S; LARSEN, RENE, RYE) 16 December 2004 (2004-12-16)<br>* page 1, line 2 - page 4, line 10 *<br>* page 6, line 29 - page 6, line 31 *<br>* page 11, line 26 - page 13, line 8 *<br>* claims 1-18; figures 1-3,14 * | 1-16                                                                                                                                                                                                                                                                         | INV.<br>H04R25/00                       |
| A                                                                                                                                                                                                                                                      | PATENT ABSTRACTS OF JAPAN<br>vol. 2000, no. 16, 8 May 2001 (2001-05-08)<br>-& JP 2001 010264 A (DAINIPPON PRINTING CO LTD), 16 January 2001 (2001-01-16)<br>* abstract *                                                                         | 1-16                                                                                                                                                                                                                                                                         |                                         |
| A                                                                                                                                                                                                                                                      | PATENT ABSTRACTS OF JAPAN<br>vol. 1996, no. 10,<br>31 October 1996 (1996-10-31)<br>-& JP 08 161655 A (MASPRO DENKOH CORP),<br>21 June 1996 (1996-06-21)<br>* abstract *                                                                          | 1-16                                                                                                                                                                                                                                                                         |                                         |
|                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                              | TECHNICAL FIELDS SEARCHED (IPC)         |
|                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                              | H04R                                    |
| The present search report has been drawn up for all claims                                                                                                                                                                                             |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                              |                                         |
| Place of search<br>Munich                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                  | Date of completion of the search<br>26 July 2006                                                                                                                                                                                                                             | Examiner<br>Meiser, J                   |
| CATEGORY OF CITED DOCUMENTS<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 |                                         |

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 06 00 4199

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The members are as contained in the European Patent Office EDP file on  
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26-07-2006

| Patent document<br>cited in search report |   | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---|---------------------|----------------------------|---------------------|
| WO 2004110099                             | A | 16-12-2004          | NONE                       |                     |
| -----                                     |   |                     |                            |                     |
| JP 2001010264                             | A | 16-01-2001          | NONE                       |                     |
| -----                                     |   |                     |                            |                     |
| JP 08161655                               | A | 21-06-1996          | NONE                       |                     |
| -----                                     |   |                     |                            |                     |