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(54) **Device and method for generating a side tone**

(57) The invention relates to a device and a method for generating a side tone (84), in particular for application in aviation and space technology. The device comprises a headset (50) with a microphone and earphones for the acquisition of an original signal (80) and for the reproduction of a side tone (84), a communication unit (43, 40) for connecting and controlling the headset (50), and a transmit/receive module (20). The device for generating

the side tone (84) is characterised in that it furthermore comprises a comparator (60) which receives both the signal (81) that enters the transmit/receive module (20) and the signal (82) that is in fact being transmitted by the transmit/receive module (20), and in that it determines that the original signal (80) is actually being transmitted. In this case the comparator (60) instructs the communication unit (43, 40) to output the original signal (80) as a side tone (84) by way of the earphone of the headset (50).

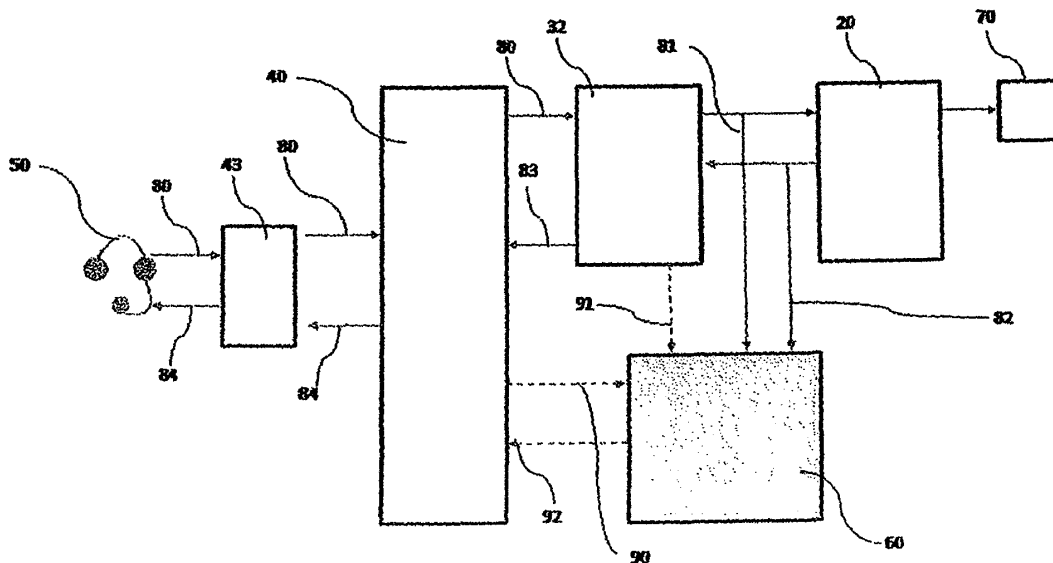


Fig. 4



EUROPEAN SEARCH REPORT

Application Number
EP 09 00 4814

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	US 2002/090078 A1 (FELTSTROM ALBERTO DIEGO JIMENE [SE] ET AL FELTSTROEM ALBERTO DIEGO JIM) 11 July 2002 (2002-07-11) * the whole document *	1,6,9,12	INV. H04M9/08
Y	----- US 5 787 180 A (HALL CHRISTOPHER A [US] ET AL) 28 July 1998 (1998-07-28) * figures 1,2 * * column 1, line 1 - column 7, line 37 *	2	ADD. H04M1/58
Y	----- US 2004/052358 A1 (LASHLEY DAVID G [US] ET AL) 18 March 2004 (2004-03-18) * figures 5-7 * * paragraph [0035] - paragraph [0056] *	2	
X	----- US 2004/052358 A1 (LASHLEY DAVID G [US] ET AL) 18 March 2004 (2004-03-18) * figures 5-7 * * paragraph [0035] - paragraph [0056] *	1,6,12	
X	----- US 6 751 203 B1 (ESHMAWY WALEED [US] ET AL) 15 June 2004 (2004-06-15) * figures 1-3 * * column 1, line 1 - column 6, line 8 *	1,6,12	
A	----- WO 87/00377 A (CODART COMMUNICATIONS INC [US]) 15 January 1987 (1987-01-15) * page 28, line 21 - page 31, line 22 * * figure 1 *	2	TECHNICAL FIELDS SEARCHED (IPC) H04M H04B
A	----- US 5 396 651 A (NITARDY JOHN H [US]) 7 March 1995 (1995-03-07) * figures 1,2,4 * * column 3, line 5 - column 5, line 48 *	3	

-The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 23 July 2009	Examiner Gavin Alarcon, Oscar
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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EPO FORM 1503 03.02 (P04C01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
- 1-3, 6, 9, 12
- The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

EP 09 00 4814

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-3,6,9,12

directed to routing the signals from / to the communication unit to / from the transmit/receive module via an encryption module

2. claim: 4

directed to feeding a sidetone from the transmit/receive module back to the earphones when malfunction of the comparator is detected

3. claim: 5

directed to electrically separating the feedback between the comparator and the communication unit

4. claim: 7

directed to limiting the band of the signals received / transmitted by the transmit/receive module

5. claim: 8

directed to amplifying the signals received / transmitted by the transmit/receive module

6. claims: 10-11

directed to determining that an original signal is actually being transmitted

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

EP 09 00 4814

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

23-07-2009

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