



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
18.09.2002 Bulletin 2002/38

(51) Int Cl.7: **H04S 3/00, H04S 5/02**

(43) Date of publication A2:
22.11.2000 Bulletin 2000/47

(21) Application number: **00304128.2**

(22) Date of filing: **16.05.2000**

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
 Designated Extension States:
AL LT LV MK RO SI

(72) Inventors:
 • **Aylward, Richard J.**
Framingham, MA 01701-9168 (US)
 • **Lehnert, Hilmar**
Framingham, MA 01701-9168 (US)

(30) Priority: **17.05.1999 US 313058**

(74) Representative: **Brunner, Michael John**
GILL JENNINGS & EVERY,
Broadgate House,
7 Eldon Street
London EC2M 7LH (GB)

(71) Applicant: **BOSE CORPORATION**
Framingham, Massachusetts 01701-9168 (US)

(54) **Directional decoding**

(57) The degree of correlation between two audio signals is determined and the channels are normalised according to first and second normalisation modes responsive to correlation and uncorrelation respectively.

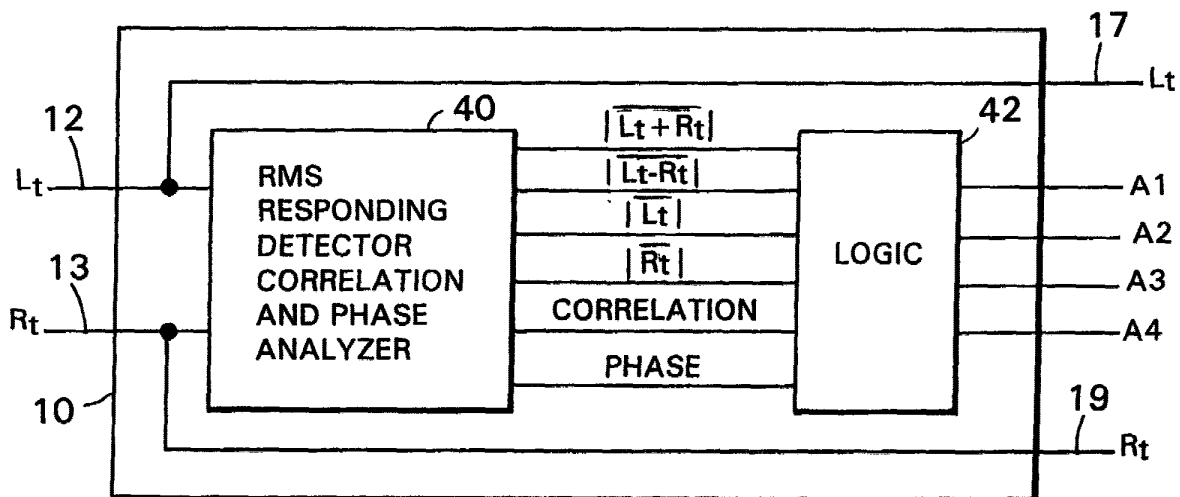


FIG. 3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 00 30 4128

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	US 5 046 098 A (MANDELL ET AL.) 3 September 1991 (1991-09-03) * column 2, line 45 - column 3, line 28; figures *	1-16	H04S3/00 H04S5/02
A	EP 0 593 128 A (KONINKL PHILIPS ELECTRONICS NV) 20 April 1994 (1994-04-20) * column 3, line 36 - column 6, line 15; figures *	1-16	
A	PATENT ABSTRACTS OF JAPAN vol. 013, no. 404 (E-817), 7 September 1989 (1989-09-07) & JP 01 144900 A (MATSUSHITA ELECTRIC IND CO LTD), 7 June 1989 (1989-06-07) * abstract *	1-16	
A	PATENT ABSTRACTS OF JAPAN vol. 017, no. 698 (E-1481), 20 December 1993 (1993-12-20) & JP 05 236599 A (CLARION CO LTD), 10 September 1993 (1993-09-10) * abstract *	1-16	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H04S H04R
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 29 July 2002	Examiner Gastaldi, G
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			

EPO FORM 1503 03.82 (p04c01)

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

EP 00 30 4128

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.

29-07-2002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5046098 A	03-09-1991	AU 611337 B2	06-06-1991
		AU 4791490 A	10-05-1990
		AU 594939 B2	22-03-1990
		AU 5436586 A	11-09-1986
		CA 1284112 A1	14-05-1991
		CN 86102314 A ,B	22-10-1986
		DE 3607610 A1	18-09-1986
		FR 2578707 A1	12-09-1986
		GB 2174275 A ,B	29-10-1986
		GB 2208780 A ,B	12-04-1989
		IT 1207068 B	17-05-1989
		JP 2824642 B2	11-11-1998
		JP 61251400 A	08-11-1986
		NL 8600595 A ,B,	01-10-1986
		US 4941177 A	10-07-1990
		US 4799260 A	17-01-1989
EP 0593128 A	20-04-1994	EP 0593128 A1	20-04-1994
		DE 69322920 D1	18-02-1999
		DE 69322920 T2	29-07-1999
		JP 6205500 A	22-07-1994
		US 5426702 A	20-06-1995
JP 01144900 A	07-06-1989	JP 2512038 B2	03-07-1996
JP 05236599 A	10-09-1993	NONE	