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EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 17.03.2004 Bulletin 2004/12	(51) Int Cl.7: H04H 1/00
(43) Date of publication A2: 31.03.1999 Bulletin 1999/13	
(21) Application number: 98117842.9	
(22) Date of filing: 21.09.1998	
(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) Inventor: Kato, Takeshi Iwaki-city, Fukushima (JP) (74) Representative: Hirsch, Peter, Dipl.-Ing. Klunker Schmitt-Nilson Hirsch Winzererstrasse 106 80797 München (DE)
(30) Priority: 29.09.1997 JP 28131197	
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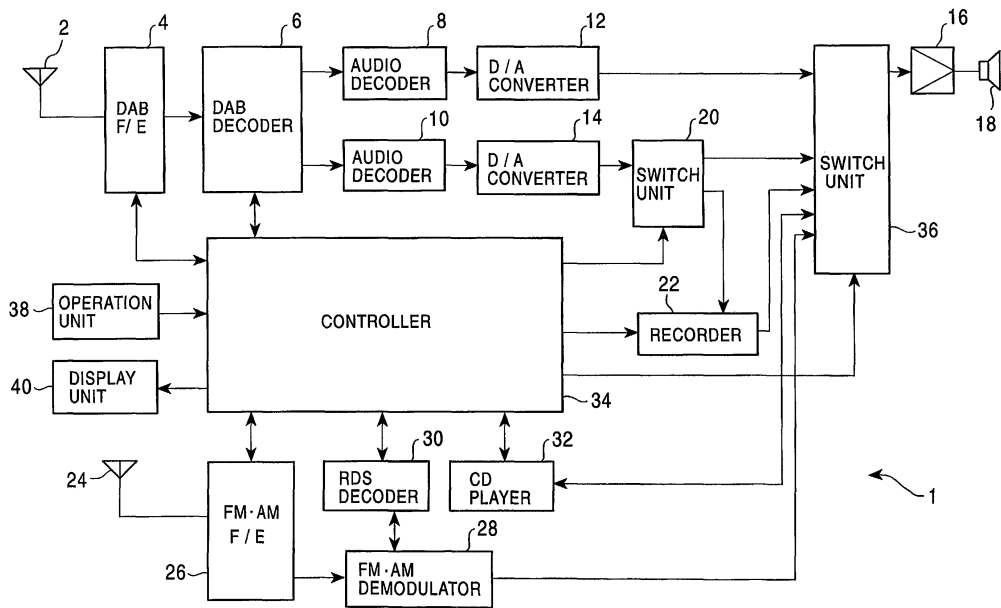
(54) Receiver for Digital Audio Broadcast comprising a plurality of decoding means for independently decoding a plurality of programmes

(57)

A DAB receiver (1) includes a DAB front/end unit (4), a DAB decoder (6), two audio decoders (8, 10), two D/A converters (12, 14), a recorder (22), a controller (34), an operation unit (38), and a display unit (40). When the voice of a service of DAB is formed and output by one audio decoder (8), and a broadcast of a prede-

termined announcement included in the same ensemble as that of the service is started, the voice of the announcement is formed by using the other audio decoder (10). As described above, two voices can be output, and the voice of the announcement is recorded on the recorder (22) or output while overlapping the voice of the service.

FIG. 1





European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 98 11 7842

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.6)
X	KOZAMERNIK F: "DIGITAL AUDIO BROADCASTING - RADIO NOW AND FOR THE FUTURE" EBU REVIEW- TECHNICAL, EUROPEAN BROADCASTING UNION. BRUSSELS, BE, no. 265, 21 September 1995 (1995-09-21), pages 2-27, XP000535348 ISSN: 0251-0936	1-4	H04H1/00
Y	* page 5, left-hand column, line 10 - page 5, right-hand column, line 5; figure 1 *	5-10	
Y	US 5 671 195 A (LEE HOWARD HONG-DOUGH) 23 September 1997 (1997-09-23) * column 6, line 11-29 * * column 6, line 44-47 * * column 6, line 66 - column 7, line 9 * * column 7, line 63-65 * * column 11, line 32 - column 12, line 7; figure 6 *	5-9	
Y	WO 96 27240 A (EGGERS PHILIP E ;SANDERS GERALD J (US)) 6 September 1996 (1996-09-06) * page 5, line 23 - page 6, line 6 *	10	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6) H04H
Place of search THE HAGUE		Date of completion of the search 16 January 2004	Examiner Torcai Serrano, C
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.**

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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
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16-01-2004

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5671195 A	23-09-1997	NONE	
WO 9627240 A	06-09-1996	US 5692058 A	25-11-1997
		AU 5356896 A	18-09-1996
		EP 0812492 A1	17-12-1997
		JP 11502070 T	16-02-1999
		WO 9627240 A1	06-09-1996
		US 5910996 A	08-06-1999