

Title (en)  
SURROUND SOUND APPARATUS

Title (de)  
Räumliches Schallwiedergabegerät

Title (fr)  
APPAREIL DE REPRODUCTION DE SON D'AMBIANCE

Publication  
**EP 0629335 B1 19990512 (EN)**

Application  
**EP 93904278 A 19930302**

Priority  
• GB 9300429 W 19930302  
• GB 9204485 A 19920302

Abstract (en)  
[origin: WO9318630A1] A decoder decodes directionally encoded audio signals for reproduction via a loudspeaker layout over a listening area. The encoded signals are received at an input and decoded by matrix means. The signals are output in a form suitable for reproduction via the loudspeaker layout. The coefficients of the decoding matrix are such that at a predetermined listening position in the listening area, the reproduced velocity vector direction and the reproduced energy vector position directions are substantially equal to each other and substantially independent of frequency in a broad audio frequency range. The gain coefficients of the decoding matrix are such that the reproduced velocity vector magnitude  $r_V$  of the decoded audio signal varies systematically with encoded sound direction at frequencies in the region of and above a predetermined middle audio frequency. In a preferred example, the decoder is an ambisonic decoder for handling, for example, B-format encoded signals. The decoder may be used in an audio-visual system, such as HDTV.

IPC 1-7  
**H04S 3/02**; **H04S 3/00**

IPC 8 full level  
**H04S 3/02** (2006.01)

CPC (source: EP)  
**H04S 3/02** (2013.01); **H04S 2400/15** (2013.01); **H04S 2420/11** (2013.01)

Cited by  
CN108632736A; US9838822B2; US10986455B2; US11451918B2; US11750996B2; US11770667B2

Designated contracting state (EPC)  
DE FR GB NL

DOCDB simple family (publication)  
**WO 9318630 A1 19930916**; DE 69324912 D1 19990617; EP 0629335 A1 19941221; EP 0629335 B1 19990512; GB 9204485 D0 19920415

DOCDB simple family (application)  
**GB 9300429 W 19930302**; DE 69324912 T 19930302; EP 93904278 A 19930302; GB 9204485 A 19920302