

Title (en)  
DEVICE AND METHOD FOR CALCULATING A DISCRETE VALUE OF A COMPONENT IN A LOUDSPEAKER SIGNAL

Title (de)  
VORRICHTUNG UND VERFAHREN ZUM BERECHNEN EINES DISKRETEN WERTS EINER KOMPONENTE IN EINEM LAUTSPRECHERSIGNAL

Title (fr)  
DISPOSITIF ET PROCEDE DE CALCUL D'UNE VALEUR DISCRETE DANS UN SIGNAL DE HAUT-PARLEUR

Publication  
**EP 1606975 A2 20051221 (DE)**

Application  
**EP 04732100 A 20040511**

Priority  
• EP 2004005047 W 20040511  
• DE 10321980 A 20030515

Abstract (en)  
[origin: WO2004103022A2] The aim of the invention is to reduce Doppler artifacts in wave field synthesis due to delay changes from a first point in time to a second point in time. For this purpose, the delay for the first point in time and then the delay for the second point in time is determined (10). A value of an audio signal delayed by the first delay for the actual point in time and a value for the audio signal delayed by the second delay for the actual point in time is determined (14). The first value is weighted with a first weighting coefficient and the mean is taken from the second value by means of a second weighting coefficient (22). The two weighted values are added up (26) in order to obtain a discrete value for the actual point in time of the component in a loudspeaker signal for a loudspeaker due to a virtual source. In this manner, a fade-over from one delay to a subsequent delay can be achieved when a delay present at a later point in time is known, thereby reducing undesired Doppler artifacts.

IPC 1-7  
**H04S 1/00**

IPC 8 full level  
**H04S 3/00** (2006.01); **H04R 7/00** (2006.01)

CPC (source: EP KR US)  
**H04S 1/00** (2013.01 - KR); **H04S 7/30** (2013.01 - EP US); **H04S 3/002** (2013.01 - EP US); **H04S 2420/13** (2013.01 - EP US)

Citation (search report)  
See references of WO 2004103022A2

Designated contracting state (EPC)  
AT CH DE FR GB LI NL

DOCDB simple family (publication)  
**WO 2004103022 A2 20041125**; **WO 2004103022 A3 20050217**; AT E352971 T1 20070215; CN 100553372 C 20091021; CN 1792118 A 20060621; DE 10321980 A1 20041209; DE 10321980 B4 20051006; DE 502004002769 D1 20070315; EP 1606975 A2 20051221; EP 1606975 B1 20070124; JP 2007502590 A 20070208; JP 4698594 B2 20110608; KR 100674814 B1 20070125; KR 20060014050 A 20060214; US 2006092854 A1 20060504; US 7734362 B2 20100608

DOCDB simple family (application)  
**EP 2004005047 W 20040511**; AT 04732100 T 20040511; CN 200480013309 A 20040511; DE 10321980 A 20030515; DE 502004002769 T 20040511; EP 04732100 A 20040511; JP 2006529784 A 20040511; KR 20057021712 A 20051114; US 25778105 A 20051025