

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 October 2007 (04.10.2007)

PCT

(10) International Publication Number
WO 2007/110101 A1

(51) International Patent Classification:
H04S 1/00 (2006.01) *H04S 3/00* (2006.01)

(21) International Application Number:
PCT/EP2006/004732

(22) International Filing Date: 18 May 2006 (18.05.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/787,096 28 March 2006 (28.03.2006) US

(71) Applicant (for all designated States except US): **FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.** [DE/DE]; Hansastrasse 27c, 80686 München (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DISCH, Sascha** [DE/DE]; Turnstrasse 7, 90763 Fürth (DE). **LINZMEIER, Karsten** [DE/DE]; Elise-Spaeth-Strasse 4, 91058 Erlangen (DE). **HERRE, Jürgen** [DE/DE]; Hallerstrasse 24, 91054 Buckenhof (DE). **POPP, Harald** [DE/DE]; Obermichelbacher Strasse 18, 90587 Tuchenbach (DE).

(74) Agents: **SCHOPPE, Fritz** et al.; SCHOPPE, ZIMMERMANN, STÖCKELER & ZINKLER, Postfach 246, 82043 Pullach Bei München (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

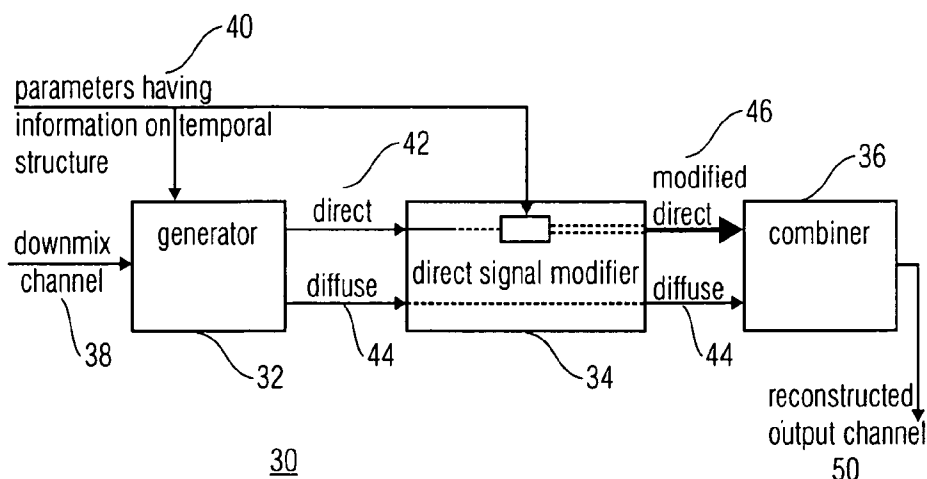
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ENHANCED METHOD FOR SIGNAL SHAPING IN MULTI-CHANNEL AUDIO RECONSTRUCTION



(57) Abstract: A reconstructed output channel, reconstructed with a multi-channel reconstructor using at least one downmix channel derived by downmixing a plurality of original channels and using a parameter representation including additional information on a temporal fine structure of an original channel can be generated using a generator (32) for generating a direct signal component (42) and a diffuse signal component (44) based on the downmix channel (38) is used. Only the direct signal component (42) is modified (34) such that the temporal (40) fine structure of the reconstructed output channel is fitting a desired temporal fine structure, indicated by the additional information on the temporal fine structure transmitted.

WO 2007/110101 A1