



- (51) International Patent Classification:
G10L 19/038 (2013.01) *H04R 5/00* (2006.01)
G10L 19/008 (2013.01)
- (21) International Application Number:
PCT/US2014/040048
- (22) International Filing Date:
29 May 2014 (29.05.2014)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
61/828,445 29 May 2013 (29.05.2013) US
61/828,615 29 May 2013 (29.05.2013) US
61/829,174 30 May 2013 (30.05.2013) US
61/829,155 30 May 2013 (30.05.2013) US
61/829,182 30 May 2013 (30.05.2013) US
61/829,846 31 May 2013 (31.05.2013) US
61/829,791 31 May 2013 (31.05.2013) US
61/886,617 3 October 2013 (03.10.2013) US
61/886,605 3 October 2013 (03.10.2013) US
61/899,041 1 November 2013 (01.11.2013) US
61/899,034 1 November 2013 (01.11.2013) US
61/925,074 8 January 2014 (08.01.2014) US
61/925,112 8 January 2014 (08.01.2014) US
61/925,126 8 January 2014 (08.01.2014) US
61/925,158 8 January 2014 (08.01.2014) US
61/933,706 30 January 2014 (30.01.2014) US
61/933,721 30 January 2014 (30.01.2014) US
- (71) Applicant: **QUALCOMM INCORPORATED** [US/US];
ATTN: International IP Administration, 5775 Morehouse
Drive, San Diego, California 92121-1714 (US).
- (72) Inventors: **SEN, Dipanjan**; 5775 Morehouse Drive, San
Diego, California 92121-1714 (US). **RYU, Sang-Uk**; 5775
Morehouse Drive, San Diego, California 92121-1714 (US).
- (74) Agent: **GAGE, Matthew, K.**; Shumaker & Sieffert, P.A.,
1625 Radio Drive, Suite 300, Woodbury, Minnesota 55125
(US).
- (81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM,
ZW.
- (84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,

[Continued on next page]

(54) Title: COMPRESSION OF DECOMPOSED REPRESENTATIONS OF A SOUND FIELD

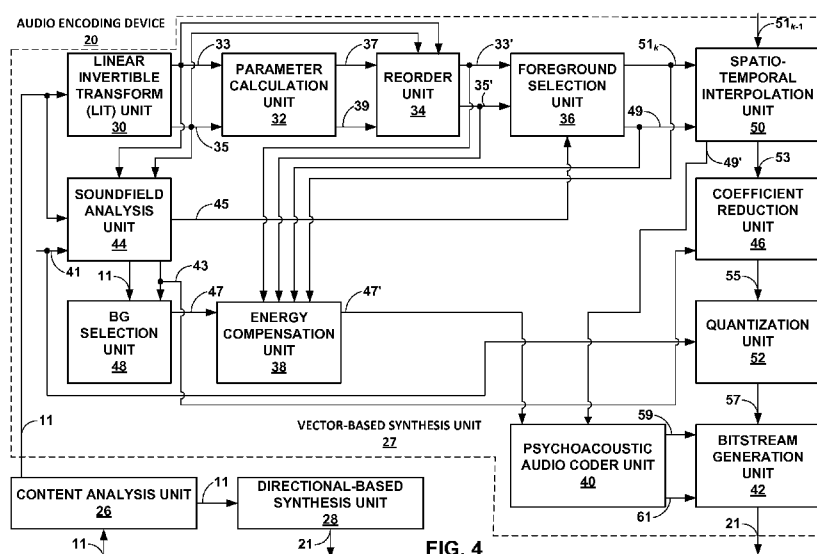


FIG. 4

(57) Abstract: In general, techniques are described for compressing decomposed representations of a sound field. A device comprising one or more processors may be configured to perform the techniques. The one or more processors may be configured to obtain a bitstream comprising a compressed version of a spatial component of a sound field, the spatial component generated by performing a vector based synthesis with respect to a plurality of spherical harmonic coefficients.



TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*