

Title (en)
AUDIO HEADSET WITH ACTIVE NOISE CONTROL ANC WITH PREVENTION OF THE EFFECTS OF SATURATION OF A MICROPHONE
SIGNAL FEEDBACK

Title (de)
AUDIOKOPFHÖRER MIT AKTIVER ANC-GERÄUSCHKONTROLLE MIT VORBEUGUNG GEGEN SÄTTIGUNGSEFFEKTE EINES FEEDBACK-
MIKROPHONSIGNALS

Title (fr)
CASQUE AUDIO À CONTRÔLE ACTIF DE BRUIT ANC AVEC PRÉVENTION DES EFFETS D'UNE SATURATION DU SIGNAL
MICROPHONIQUE FEEDBACK

Publication
EP 2945399 B1 20161012 (FR)

Application
EP 15166492 A 20150506

Priority
FR 1454406 A 20140516

Abstract (en)
[origin: US2015332662A1] The headset includes an active noise control, with an internal ANC microphone (28) placed inside the acoustic cavity (22) and delivering a signal including an acoustic noise component. A digital signal processor DSP (50) comprises a feedback ANC branch (54) applying a filtering transfer function (54, HFB2) to the signal delivered by the ANC microphone, and means (46) for mixing the signal of the feedback branch with an audio signal to be reproduced (M). The headset comprises a movement sensor (64) mounted on one of the earphones. The DSP comprises means (68) for analysing concurrently i) the signal delivered by the internal microphone (28) and ii) the signal delivered by the movement sensor (64), and verifying whether current characteristics of these signals fulfil or not a set of predetermined criteria. Upstream from the feedback ANC filter (54), an anti-saturation filter (70, HFB1) is selectively switched as a function of the result of this verification. The filtering of an equalization branch (58, HEQ2) of the signal to be reproduced (M) is also modified by a similar anti-saturation filter (72, HEQ1).

IPC 8 full level
H04R 1/10 (2006.01); **G10K 11/175** (2006.01); **H04R 5/033** (2006.01)

CPC (source: EP US)
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H04R 2420/01 (2013.01 - EP US)

Cited by
GB2589802A; GB2589802B; CN114501291A; US10187719B2; EP3171612A1; US11178478B2; US10097914B2; US10334350B2;
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