

Title (en)

METHOD FOR EXCITING PIEZOELECTRIC TRANSDUCERS AND SOUND-PRODUCING ARRANGEMENT

Title (de)

VERFAHREN ZUR ANREGUNG VON PIEZOELEKTRISCHEN WANDLERN UND SCHALLERZEUGUNGSANORDNUNG

Title (fr)

PROCÉDÉ D'EXCITATION DE TRANSDUCTEURS PIÉZOÉLECTRIQUES ET DISPOSITIF DE PRODUCTION DE SONS

Publication

EP 3408036 A1 20181205 (DE)

Application

EP 17700513 A 20170112

Priority

- DE 102016101660 A 20160129
- EP 2017050612 W 20170112

Abstract (en)

[origin: WO2017129415A1] Proposed is a method for exciting sound-wave producing transducers (7) which have operating frequencies defining a transducer frequency range, in which a generator (9) produces an electrical drive signal for the transducers (7), said electrical drive signal being fed to the transducers (7), wherein the generator (9) carries out frequency sweeps in a frequency sweep range between a minimum frequency (f_{\min}) and a maximum frequency (f_{\max}) with an adjustable sweep rate, with a target frequency (f_{Ziel}) being defined within said frequency sweep range, said method being characterized in that the minimum frequency (f_{\min}), the maximum frequency (f_{\max}) and the target frequency (f_{Ziel}) are selected in such a way that a first frequency difference (Δf_1) between the minimum frequency (f_{\min}) and the target frequency (f_{Ziel}) differs in terms of magnitude from a second frequency difference (Δf_2) between the maximum frequency (f_{\max}) and the target frequency (f_{Ziel}) within a number of frequency sweeps, and wherein the minimum frequency (f_{\min}) and/or the maximum frequency (f_{\max}) and/or the target frequency (f_{Ziel}) is/are modified after at least one frequency sweep in such a way that an arithmetic mean of the first frequency differences (Δf_1), formed over all frequency sweeps carried out, and an arithmetic mean of the second frequency differences (Δf_2), formed over all frequency sweeps carried out, are substantially the same in terms of magnitude.

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 2017129415A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102016101660 A1 20170803; CN 108602093 A 20180928; CN 108602093 B 20210504; EP 3408036 A1 20181205; JP 2019511954 A 20190509; JP 6935408 B2 20210915; US 11065644 B2 20210720; US 2019030568 A1 20190131; WO 2017129415 A1 20170803

DOCDB simple family (application)

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