

Title (en)

METHOD AND DEVICE FOR PRODUCING A KEY-CLICK EFFECT ON A HAPTIC INTERFACE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ERZEUGUNG EINES TASTENKLICKEFFEKTS AUF EINER HAPTISCHEN SCHNITTSTELLE

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR LA RÉALISATION D'UN EFFET DE CLIC-BOUTON SUR UNE INTERFACE HAPTIQUE

Publication

EP 4025983 A2 20220713 (FR)

Application

EP 20851283 A 20200903

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Abstract (en)

[origin: WO2021044085A2] The invention relates to a method for producing a haptic feedback effect by means of a so-called air cushion or "squeeze film" effect on a haptic interface (20) provided with electromechanical actuators (22) which are configured to apply to said haptic interface ultrasonic vibrations capable of creating standing waves, characterized in that the method comprises the following steps: a. In a preliminary characterization phase (10) of the haptic interface (20), determining a subset (Ω) of resonance frequencies f_i of the haptic interface (20) in the ultrasonic domain; b. Defining a haptic sequence consisting of an electrical excitation signal $s(t)$ formed by a succession of at least two periodic signals having frequencies f_i, f_j which are distinct from each other and belong to said subset (Ω) of resonance frequencies of the haptic interface (20); c. In a use phase, detecting (12) a static touch action of a user on an area of a surface (21) of the haptic interface (20); d. In response to said detection (12), exciting (13) the electromechanical actuators (22) using said electrical excitation signal $s(t)$, so as to transition from a first standing wave to a second standing wave, thereby producing lateral forces felt as a key-click sensation by the user on the haptic surface (20).

IPC 8 full level

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CPC (source: EP US)

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