Title (en)

AN ACOUSTIC INTERFACE FOR AN ALARM DEVICE

Title (de)

AKUSTISCHE SCHNITTSTELLE FÜR EINE ALARMVORRICHTUNG

Title (fr)

INTERFACE ACOUSTIQUE POUR UN DISPOSITIF D'ALARME

Publication

EP 4089655 A1 20221116 (EN)

Application

EP 22169570 A 20220422

Priority

EP 21173146 A 20210510

Abstract (en)

An acoustic interface (1) is for a device such as an alarm device. It has a vibratory element piezoelectric horn (2) and a drive circuit (8, 5) with a processor (8) for delivering drive electrical signals (7) to the horn to cause it to vibrate and generate a sound signal with encoded binary data. The piezo horn (2) has a natural frequency, and the control signals are frequency encoded with pulses having pulse widths (t_p) which are significantly shorter than the vibrating member natural frequency period (1/f_N). The encoding processor (8) provides the control signals via a feedback transistor (5) and a voltage oscillator (6), the vibratory element (2) having at least three electrical contacts of which two are for power and a third is for feedback to the feedback transistor (5), in which mechanical oscillation of the vibratory element generates an electrical feedback signal used to amplify this control signal (7).

IPC 8 full level

G08B 3/10 (2006.01); **G10K 9/122** (2006.01); **G10K 9/18** (2006.01); B06B 1/02 (2006.01)

CPC (source: EP)

G08B 3/10 (2013.01); **G10K 9/122** (2013.01); **G10K 9/18** (2013.01); B06B 1/0215 (2013.01)

Citation (applicant)

EP 2461299 A2 20120606 - E I TECHNOLOGY LTD [IE]

Citation (search report)

- [AD] EP 2461299 A2 20120606 - E I TECHNOLOGY LTD [IE]
- [A] US 2013197320 A1 20130801 - ALBERT DAVID E [US], et al
- [A] EP 3502741 A2 20190626 - AISIN SEIKI [JP]
- [A] US 2016119168 A1 20160428 - ROY NIRUPAM [US], et al

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4089655 A1 20221116; **EP 4089655 B1 20240710**

DOCDB simple family (application)

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