

Title (en)

MULTI-TRANSDUCER CHIP ULTRASOUND DEVICE

Title (de)

ULTRASCHALLVORRICHTUNG MIT MULTIWANDLERCHIP

Title (fr)

DISPOSITIF À ULTRASONS À PUCES À TRANSDUCTEUR MULTIPLES

Publication

EP 4231920 A1 20230830 (EN)

Application

EP 21962691 A 20211026

Priority

US 2021056669 W 20211026

Abstract (en)

[origin: WO2023075756A1] An ultrasound device for use with various types of imaging. In some embodiments, the ultrasound device may comprise a circuitry substrate and a plurality of transducer chips coupled to the circuitry substrate. In some embodiments, each transducer chip may comprise a microelectromechanical systems (MEMS) component that may include a plurality of ultrasound elements closely packed with one another, an Application-Specific Integrated Circuit (ASIC) that may be operatively coupled to the plurality of ultrasound elements of said MEMS component, and a control unit that may be electrically coupled to each ASIC of the plurality of transducer chips for control thereof. In some embodiments, at least two transducer chips of the plurality of transducer chips may be placed on the circuitry substrate with a separation distance that may be less than an operational wavelength of the ultrasound elements of the MEMS components of said at least two transducer chips.

IPC 8 full level

A61B 8/00 (2006.01); **B06B 1/06** (2006.01); **H04R 19/00** (2006.01)

CPC (source: EP KR)

A61B 8/4483 (2013.01 - EP KR); **A61B 8/4494** (2013.01 - EP KR); **A61N 7/02** (2013.01 - EP); **B06B 1/0207** (2013.01 - EP KR); **B06B 1/0629** (2013.01 - EP KR); **H04R 19/00** (2013.01 - KR); **A61N 2007/0052** (2013.01 - EP); **B06B 2201/20** (2013.01 - EP KR); **B06B 2201/76** (2013.01 - EP KR)

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)

WO 2023075756 A1 20230504; CN 116671130 A 20230829; EP 4231920 A1 20230830; EP 4231920 A4 20240703; JP 2024504163 A 20240130; KR 20230119723 A 20230816

DOCDB simple family (application)

US 2021056669 W 20211026; CN 202180083270 A 20211026; EP 21962691 A 20211026; JP 2023544487 A 20211026; KR 20237024804 A 20211026