

Title (en)

ULTRASONIC TRANSDUCER DEVICES USING AN ARRAY OF PIEZOELECTRIC TRANSDUCER ELEMENTS

Publication

EP 0162515 B1 19900808 (FR)

Application

EP 85200735 A 19850510

Priority

FR 8407957 A 19840522

Abstract (en)

[origin: US4603276A] An ultrasonic transducer comprising a network of parallel piezoelectric transducer elements having a width W or in the form of a parallelepipedon having a length H and a width W, characterized in that the thickness T of the said transducer elements is equal to half the wavelength corresponding to a frequency F which is equal to the average value of at least two of the successive piezoelectric resonance frequencies of the piezoelectric material concerned, the products of the thickness and the resonance frequencies framing at least two successive vibratory modes of this material in the bidimensional diagram of the curves $F \times T = f(W/T)$ of the spread of the resonance frequencies relating to the piezoelectric material concerned or in the tridimensional diagram of the curves $F \times T = f(W/T, H/T)$.

IPC 1-7

G10K 11/34

IPC 8 full level

B06B 1/06 (2006.01); **G01N 29/04** (2006.01); **G01N 29/24** (2006.01); **H04R 17/00** (2006.01)

CPC (source: EP US)

B06B 1/0622 (2013.01 - EP US)

Citation (examination)

- Proc IEEE, 1983, Ultrasonics Symposium, Atlanta, pp. 773-777
- Acta Electronica, 25, 4, 1983, pp. 325-340

Cited by

EP0480045A4; EP0219919A1; FR2589247A1

Designated contracting state (EPC)

BE DE FR GB SE

DOCDB simple family (publication)

EP 0162515 A1 19851127; EP 0162515 B1 19900808; CA 1230409 A 19871215; DE 3579039 D1 19900913; FR 2565033 A1 19851129; FR 2565033 B1 19870605; IL 75246 A0 19850929; IL 75246 A 19881115; JP H0695088 B2 19941124; JP S60260849 A 19851224; US 4603276 A 19860729

DOCDB simple family (application)

EP 85200735 A 19850510; CA 481627 A 19850515; DE 3579039 T 19850510; FR 8407957 A 19840522; IL 7524685 A 19850520; JP 10920985 A 19850521; US 73438085 A 19850515