Title (en)

APPARATUS AND METHODS

Title (de)

VORRICHTUNG UND VERFAHREN

Title (fr)

APPAREIL ET PROCÉDÉS

Publication

EP 2695239 A1 20140212 (EN)

Application

EP 12717450 A 20120329

Priority

- GB 201105569 A 20110401
- GB 2012050706 W 20120329

Abstract (en)

[origin: GB2489524A] An electromagnetic wave antenna comprises a bar of piezoelectric material with a length which is at least five times that of the bar dimensions which are perpendicular to the said length direction. First and second electrodes are deposited at spaced apart locations along the length of the said bar. There is an inherent polarisation in a direction along the length of the said bar. Also disclosed is a method of receiving or transmitting an electromagnetic wave comprising coupling an electromagnetic wave to a bar of piezoelectric material to induce longitudinal acoustic vibrations therein and where the length of the said piezoelectric bar is substantially equal to an integral number of half wavelengths of the longitudinal acoustic vibrations at a frequency of said electromagnetic wave. Further disclosed is a piezoelectric antenna, or a method of forming an electro-acoustic wave antenna, comprising exciting a two dimensional surface wave pattern of charge in a piezoelectric material where the said charge pattern forms an electromagnetic wave antenna.

IPC 8 full level

H01Q 1/36 (2006.01); **H01Q 9/04** (2006.01)

CPC (source: EP GB)

G01N 29/2437 (2013.01 - GB); **H01Q 1/22** (2013.01 - EP); **H01Q 1/2208** (2013.01 - GB); **H01Q 1/364** (2013.01 - EP); **H01Q 9/0485** (2013.01 - EP GB); **H01Q 21/00** (2013.01 - EP GB)

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

DOCDB simple family (publication)

GB 201105569 D0 20110518; **GB 2489524 A 20121003**; CN 103703613 A 20140402; EP 2695239 A1 20140212; WO 2012131376 A1 20121004

DOCDB simple family (application)

GB 201105569 A 20110401; CN 201280026420 A 20120329; EP 12717450 A 20120329; GB 2012050706 W 20120329