

Title (en)  
TOUCH SCREEN AND METHOD OF USE

Title (de)  
BERÜHRUNGSSCHIRM UND BENUTZUNGSVERFAHREN

Title (fr)  
ÉCRAN TACTILE ET PROCÉDÉ D'UTILISATION

Publication  
**EP 2203801 A4 20120502 (EN)**

Application  
**EP 08805443 A 20080919**

Priority  
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• FI U20070372 U 20070919

Abstract (en)  
[origin: WO2009037383A1] A touch screen according to the invention comprises a display unit (102), which has been connected to an electric device, and the image of the display unit is guided by the electric device. With the help of the touch screen the user can feed information to the device and control it using the user interface. The touch screen is equipped with one or several EMF film sensors (101, 104, 108, 110), which are in contact with the protective element (103) covering the display unit and EMF film sensors at least partly, and the EMF film sensors are connected to the control unit (107). In the method in question a pressure is directed at a spot on the protective element using a finger or another touching tool. The pressure applied to a spot on the protective element presses the EMF film sensors with forces, which are comparable to the spot where the pressure is applied to. The pressure on the EMF film sensors creates an electric response in the film sensors, which response is comparable to the pressure applied to the sensors. The control unit reads the electric responses of the film sensors and based on the responses, estimates the spot or force, or both, in the protective element onto which the pressure has been applied to, and reports it to the electric device. The electric device operates according to pre-set instructions based on the values given by the control unit.

IPC 8 full level  
**G06F 3/045** (2006.01)

CPC (source: EP FI US)  
**G06F 3/04142** (2019.04 - EP FI US)

Citation (search report)  
• [X1] EP 0817110 A2 19980107 - NOKIA MOBILE PHONES LTD [FI]  
• [X1] US 2004263483 A1 20041230 - AUFDERHEIDE BRIAN E [US]  
• [X1] LAURENTIU BARNAL ET AL: "The Use of Electromechanical Film (EMFi) Sensors in Building a Robust Touch-Sensitive Tablet-Like Interface", IEEE SENSORS JOURNAL, IEEE SERVICE CENTER, NEW YORK, NY, US, vol. 7, no. 1, 1 January 2007 (2007-01-01), pages 74 - 80, XP011152487, ISSN: 1530-437X, DOI: 10.1109/JSEN.2006.888608  
• See references of WO 2009037383A1

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