Registro 1 de 1

Patent Number(s): US2013215065-A1; US8963888-B2

Title: Electro-vibration apparatus to provide tactile feedback to electronic device user, generates vibration to user, when main portion of body of user is moved across main segment, and auxiliary portion of body is in contact with electrode

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Abstract: NOVELTY - The electro-vibration apparatus (1) is provided with has a partially transparent main segment (10) with an electrically conductive section, and an electrode (14). A vibration system is connected to the electrically conductive section and the electrode. The vibration system provides a voltage across the electrically conductive section, a portion of a body of a user, and the electrode. The apparatus generates a vibration to user, when a main portion of body of the user is moved across the main segment while an auxiliary portion of body is in contact with the electrode.

USE - Electro-vibration apparatus for providing tactile feedback to user visually impaired person such as of portable electronic device with touch screen displays such as smartphone. Can also be used in relation to computer gaming.

ADVANTAGE - The electro-vibration apparatus is provided with transparent electro-vibration film and is formed of very simple construction with no moving components. Thus, it is relatively easy to manufacture and is provided with relatively low bill of materials. The nature of the materials used for the transparent electro-vibration film, and its dimensions, can allow the film to be bendable and flexible. Thus, the electro-vibration device can be integrated with flexible hand-held display devices. The electro-vibration apparatus can allow the visually impaired person to feel by touch what is being shown on the display, even when they cannot see it properly. The electro-vibration apparatus can creates a sound while providing electro-vibration to a user, depending on characteristics of the apparatus and at electro-vibration signal frequencies of higher than 600 Hz. The frequency of the sound can be varied with the frequency of the electro-vibration signal, and this noise can also be of use in providing an indication of what is being displayed on the display screen. Thus, when the user slides their finger over the video/music player icon, a noise can be generated and this can provide an additional indication to the user as to the identification of the icon.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) method for providing tactile feedback to users of touch screen displays; and

(2) computer-readable storage medium storing program for providing tactile feedback to users of touch screen displays.

DESCRIPTION OF DRAWING(S) - The drawing shows the schematic cross-sectional view of an apparatus for providing tactile feedback to a user of a portable electronic device.

Electro-vibration apparatus (1)

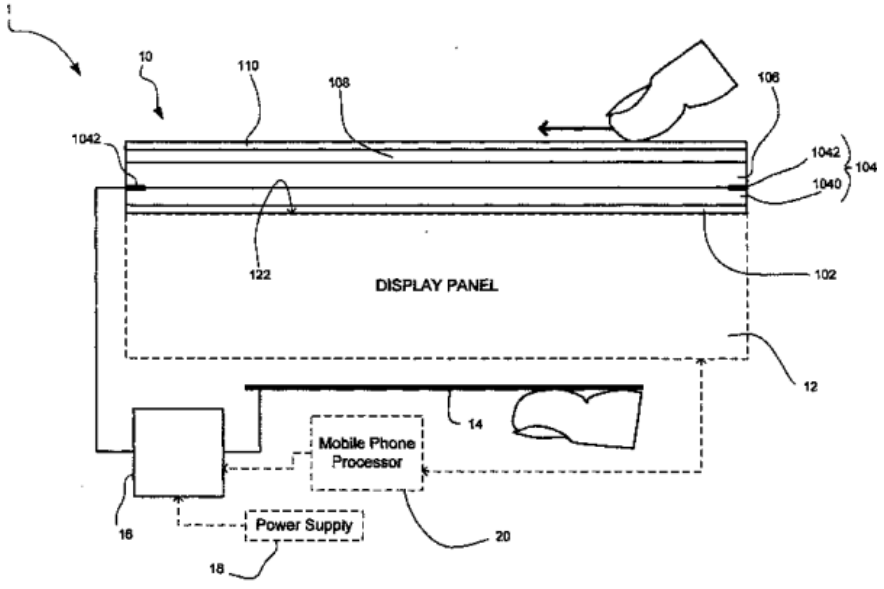
Partially transparent main segment (10)

Electrode (14)

Feedback circuitry (16)

Processor (20)

Drawing:



Derwent Class Code(s): T01 (Digital Computers); T04 (Computer Peripheral Equipment); W01 (Telephone and Data Transmission Systems)

Derwent Manual Code(s): T01-J12D; T04-F02A2; T04-F02C; T04-F03; T04-H04; W01-C01B8H; W01-C01D3C; W01-C01G8A; W01-C01P2; W01-C01Q6A

IPC: G06F-003/01; G06F-003/042; G06F-003/045

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Further Application Details:

US2013215065-A1	Cont of	Application	US542373
US2013215065-A1	Cont of	Patent	US8441465
US8963888-B2	Cont of	Application	US542373
US8963888-B2	Cont of	Patent	US8441465

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