

**34.** The method as defined in claim 33 wherein the method further comprises the step of providing a region wherein the impedance sensing means is capable of operation, and wherein the region is characterized as having no keys disposed above the touchpad.

**35.** The method as defined in claim 34 wherein the method further comprises the step of forming the plurality of keys as part of a keymat.

**36.** The method as defined in claim 35 wherein the method further comprises the step of disposing the impedance sensing means adjacent to the keymat.

**37.** The method as defined in claim 36 wherein the method further comprises the step of forming the keymat and the impedance sensing means to be coextensive.

**38.** The method as defined in claim 37 wherein the method further comprises the step of forming the plurality of keys of a rubber-like material that does not interfere with operation of the impedance sensing means.

**39.** The method as defined in claim 38 wherein the method further comprises the step of configuring the impedance sensing means to detect the presence and location of a finger that is disposed over the impedance sensing means, and touching the surface of the plurality of keys, or a surface of the portable electronic appliance that is immediately adjacent and in between the plurality of keys.

**40.** The method as defined in claim 39 wherein the method further comprises the steps of

- (1) providing a first electrode grid; and
- (2) providing a second electrode grid that is disposed coextensive with the first electrode grid.

**41.** The method as defined in claim 40 wherein the method further comprises the steps of:

- (1) configuring the first electrode grid arranged with electrodes generally in parallel, but with nonuniform spacing therebetween; and
- (2) configuring the second electrode grid arranged with electrodes generally in parallel, but with nonuniform spacing therebetween.

**42.** The method as defined in claim 41 wherein the method further comprises the steps of:

- (1) disposing a plurality of apertures through the impedance sensing means; and
- (2) disposing a post on a bottom side of each of the plurality of keys, wherein each post is positioned in the keymat so as to be capable of passing through one of the plurality of apertures in the impedance sensing means if a key is pressed.

**43.** The method as defined in claim 42 wherein the method further comprises the steps of:

- (1) disposing a switch substrate beneath the impedance sensing means;
- (2) providing a plurality of mechanical switches, wherein each switch is disposed beneath a corresponding aperture through the impedance sensing means, and beneath a post of each of the plurality of keys; and
- (3) disposing a dome over each of the plurality of mechanical switches.

**44.** The method as defined in claim 43 wherein the method further comprises the step of providing a light emitting

means on the touchpad substrate, to thereby provide illumination to the plurality of keys.

**45.** The method as defined in claim 44 wherein the method further comprises the step of providing a plurality of light emitting diodes (LEDs) disposed adjacent to each of the plurality of mechanical switches.

**46.** The method as defined in claim 45 wherein the method further comprises the step of providing a plurality of electroluminescent panels.

**47.** The method as defined in claim 46 wherein the method further comprises the step of providing a single electroluminescent panel having a plurality of apertures there-through, one for each of the plurality of mechanical switches.

**48.** The method as defined in claim 47 wherein the method further comprises the step of providing a transparent impedance sensing means.

**49.** The method as defined in claim 48 wherein the method further comprises the step of providing a translucent impedance sensing means.

**50.** The method as defined in claim 49 wherein the method further comprises the step of manufacturing the first electrode grid and the second electrode grid from conductive ink.

**51.** The method as defined in claim 50 wherein the method further comprises the step of utilizing indium-tin-oxide as the conductive ink.

**52.** The method as defined in claim 51 wherein the method further comprises the steps of:

- (1) disposing a first electrode grid on a touchpad substrate;
- (2) disposing a first dielectric insulating layer thereover;
- (3) disposing a second electrode grid on the first dielectric insulating layer;
- (4) disposing a second dielectric insulating layer thereover; and
- (5) coupling a touchpad circuit to the first electrode grid and the second electrode grid, wherein the touchpad circuit utilizes a disturbance in mutual capacitance between the first electrode and the second electrode grid to detect an object in proximity to the impedance sensing means.

**53.** The method as defined in claim 52 wherein the method further comprises the step of utilizing a transparent material for the touchpad substrate.

**54.** The method as defined in claim 53 wherein the method further comprises the step of utilizing a translucent material for the touchpad substrate.

**55.** The method as defined in claim 54 wherein the method further comprises the step of utilizing a material for the touchpad substrate that has a temperature coefficient that is higher than solder, to thereby enable the disposing of electronic circuits directly to the touchpad substrate.

**56.** The method as defined in claim 55 wherein the method further comprises the step of utilizing a material for the touchpad substrate that has a temperature coefficient that is higher than solder, to thereby enable etching of metallic traces to the touchpad substrate.

**57.** The method as defined in claim 56 wherein the method further comprises the steps of: