

from the outside world. As such, the deposition of the insulating material at operation **106** may be an optional operation of flowchart **100**. The deposition of the insulating material at operation **106** may be implemented in diverse ways. For example, at operation **106**, a deposition of a dielectric layer (e.g., SiO₂, Spin-On-Glass, and the like) can be used as the insulating material. It is appreciated that the insulating material at operation **106** may include a substantially transparent insulating material or an opaque insulating material. Additionally, the insulating material may be deposited at operation **106** to cover the entire set of conductive traces or it may be deposited to cover one or more portions of the set of conductive traces. At the completion of operation **106**, the process exits flowchart **100**.

[0027] FIG. 2 is a flowchart **200** of operations performed in accordance with an embodiment of the present invention for fabricating a capacitive sensing device. Although specific operations are disclosed in flowchart **200**, such operations are exemplary. That is, the present embodiment is well suited to performing various other operations or variations of the operations recited in FIG. 2.

[0028] The present embodiment provides a method for fabricating a capacitive sensing device that includes two sets of conductive traces. For example, a substantially transparent substrate (e.g., a glass, a plastic or a crystalline material) is utilized to fabricate the capacitive sensing device. A first set of conductive traces is patterned above the substantially transparent substrate. A first insulating material is deposited above the first set of conductive traces. Furthermore, a second set of conductive traces is patterned above and coupled to the substantially transparent substrate. Optionally, a second insulating material can be deposited above the second set of conductive traces. In one embodiment, the second insulating material may act as protection for the first and second sets of conductive traces and may also provide them electrical insulation from the outside world.

[0029] At operation **102** of FIG. 2, a substantially transparent substrate is utilized to fabricate a capacitive sensing device. It is noted that the substantially transparent substrate may include a wide variety of materials in accordance with the present embodiment. It is appreciated that the substantially transparent substrate at operation **102** can be implemented in any manner similar to operation **102** of FIG. 1, described herein.

[0030] At operation **202**, a first set of conductive traces are patterned above the substantially transparent substrate. It is understood that the first set of conductive traces may be implemented in diverse ways at operation **202**. For example, the first set of conductive traces can be implemented in any manner similar to the set of conductive traces at operation **104**, described herein.

[0031] At operation **204** of FIG. 2, a first insulating material is deposited above the first set of conductive traces. The deposition of the first insulating material at operation **204** may be implemented in a wide variety of ways. For example, the deposition of the first insulating material at operation **204** can be implemented in any manner similar to the deposition of the insulating material at operation **106**. Additionally, it is understood that the first insulating material at operation **204** can be implemented in any manner similar to that described herein.

[0032] At operation **206**, a second set of conductive traces are patterned above and coupled to the substantially trans-

parent substrate. It is understood that the second set of conductive traces may be implemented in diverse ways. For example, the second set of conductive traces can be implemented in any manner similar to the set of conductive traces at operation **104**, described herein. Alternatively, the second set of conductive traces may provide local bridges that electrically couple traces of the first set of conductive traces as shown in FIGS. 9 and 10. In another embodiment, the second set of traces can be a second layer above the first set of conductive traces as shown in FIG. 7.

[0033] At operation **208** of FIG. 2, a second insulating material is deposited above the second set of conductive traces. The deposition of the second insulating material at operation **208** may be implemented in a wide variety of ways. For example, the deposition of the second insulating material at operation **208** can be implemented in any manner similar to the deposition of the insulating material at operation **106**. Furthermore, it is understood that the second insulating material at operation **208** can be implemented in any manner similar to that described herein. It is noted that the second insulating material deposited at operation **208** can act as protection for the second set of conductive traces and also provide them electrical insulation from the outside world. Alternatively, the second insulating material deposited at operation **208** can act as protection for the first and second sets of conductive traces and also provide them electrical insulation from the outside world. The deposition of the second insulating material at operation **208** may be an optional operation of flowchart **200**. At the completion of operation **208**, the process exits flowchart **200**.

[0034] It is noted that any number of sets of conductive traces may be implemented in accordance with the present embodiment. For example, operations similar to operations **202** and/or **204** may be repeated as desired.

[0035] FIGS. 3, 4 and 5 are each a flowchart of an exemplary "patterning" operation that can be utilized in conjunction with embodiments of the present invention. It is understood that patterning can include any transference of a design to some type of surface (e.g., a substrate, a layer of material, multiple layers of material, and the like). FIGS. 3, 4 and 5 each represents a process that can be utilized in combination with, but is not limited to, flowcharts **100**, **200** and **600** of FIGS. 1, 2 and 6, respectively. It is appreciated that FIGS. 3, 4 and 5 each represents a process that is well known by those of ordinary skill in the art. Further details with regard to these and other processes can be found in publications related to display or semiconductor manufacture; for example, "Microchip Fabrication: A Practical Guide to Semiconductor Processing" by Peter Van Zan, 4th edition (Apr. 3, 2000), McGraw-Hill Professional, ISBN: 0071356363, which is hereby incorporated by reference.

[0036] FIG. 3 is a flowchart **300** of an exemplary printing process in accordance with an embodiment of the present invention. Although specific operations are disclosed in flowchart **300**, such operations are exemplary. That is, the present embodiment is well suited to performing various other operations or variations of the operations recited in FIG. 3.

[0037] At operation **302**, material is deposited in a desired pattern above a substrate. It is appreciated that the deposition of the material in the desired pattern at operation **302** may be implemented in diverse ways. For example, material can