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(54) **TOUCH SCREEN SENSOR**

(75) Inventors: **Matthew H. FREY**, Cottage Grove, MN (US); **Lijun Zu**, Minneapolis, MN (US); **Edward S. Hagermoser**, Lancaster, MA (US)

Correspondence Address:
3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427 (US)

(73) Assignee: **3M Innovative Properties Company**

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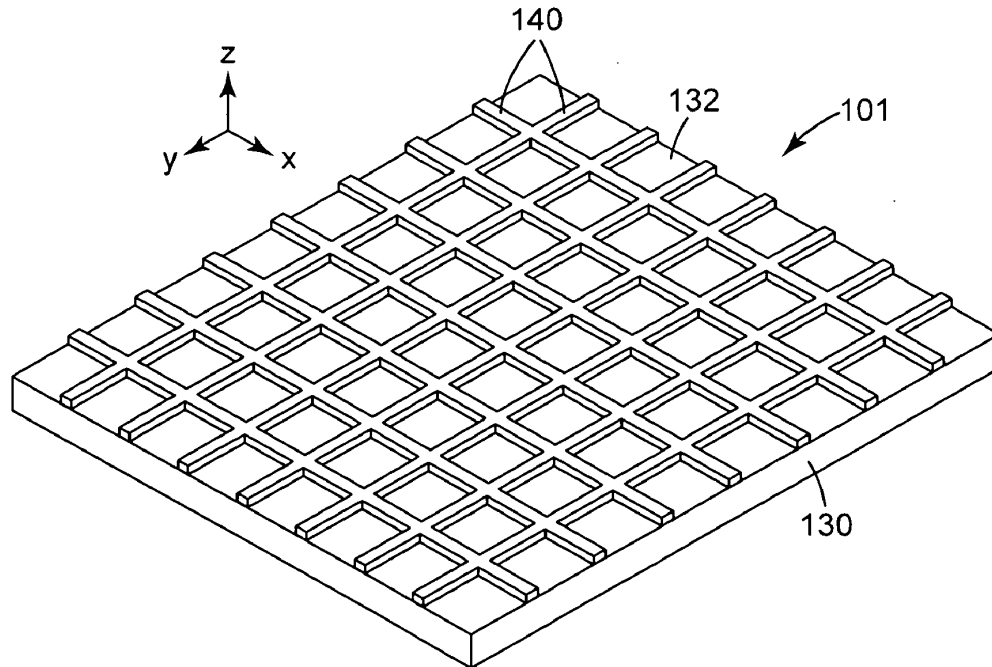
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(57) **ABSTRACT**

A touch screen sensor includes a visible light transparent substrate and an electrically conductive micropattern disposed on or in the visible light transparent substrate. The micropattern includes a first region micropattern within a touch sensing area and a second region micropattern. The first region micropattern has a first sheet resistance value in a first direction, is visible light transparent, and has at least 90% open area. The second region micropattern has a second sheet resistance value in the first direction. The first sheet resistance value is different from the second sheet resistance value.



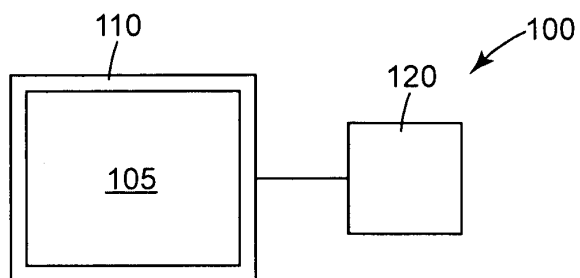


Fig. 1

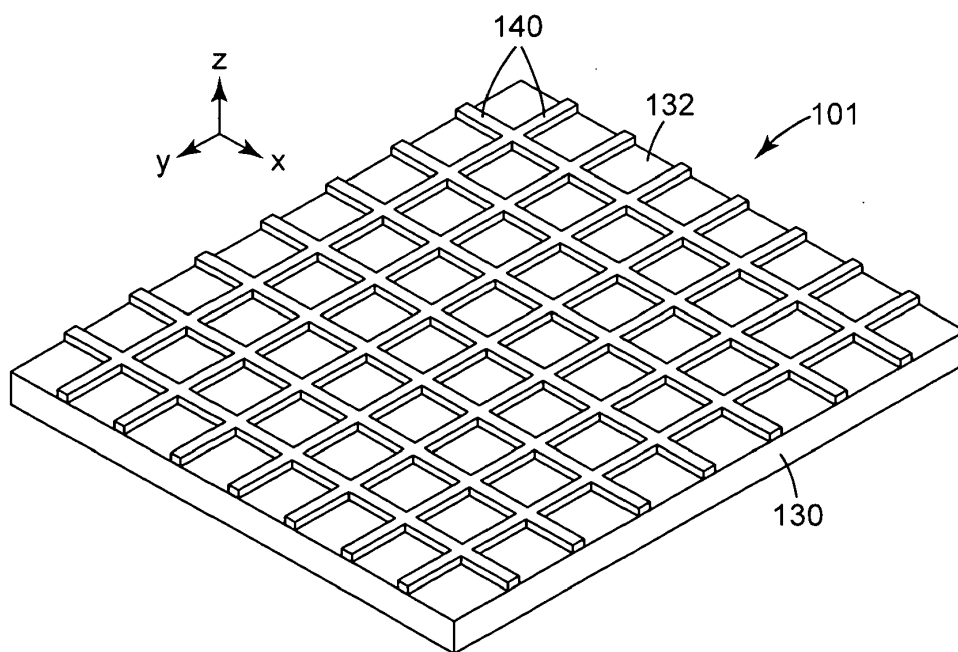


Fig. 2

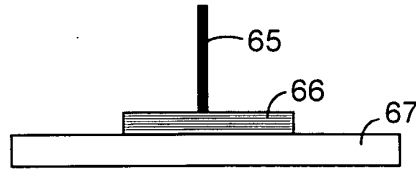


Fig. 3a

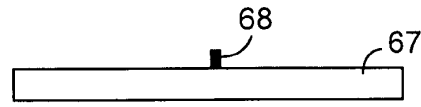


Fig. 3b

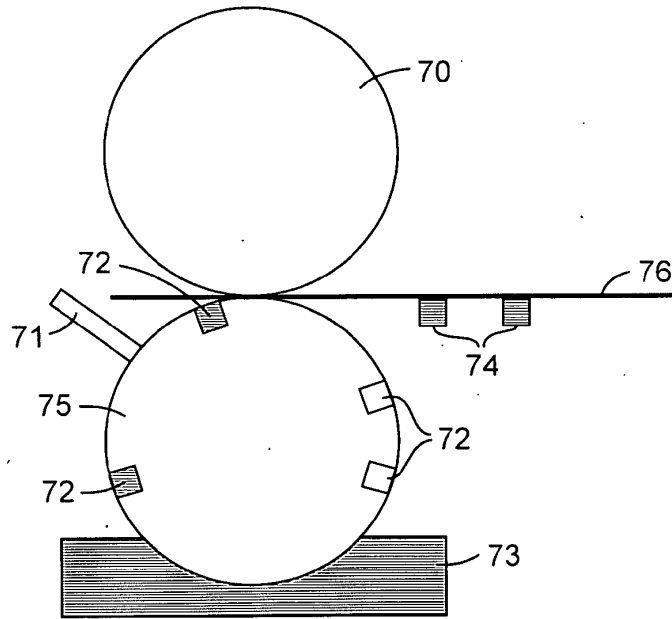


Fig. 4

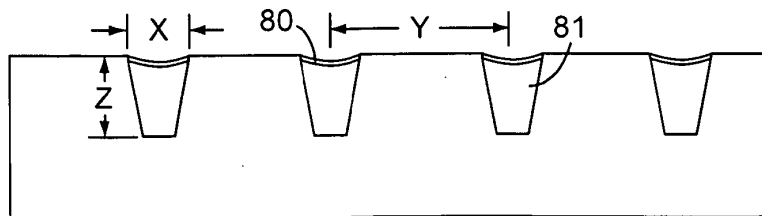


Fig. 5

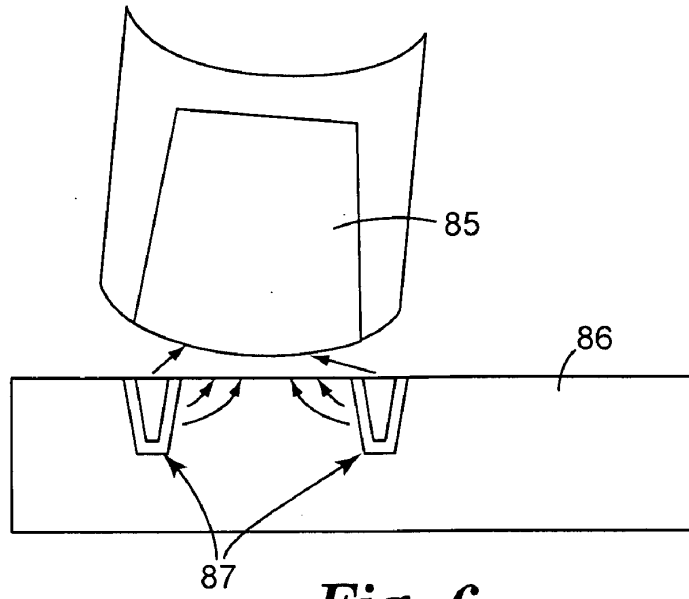


Fig. 6

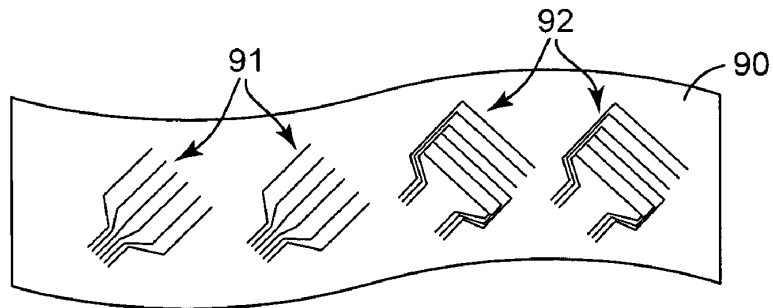


Fig. 7a

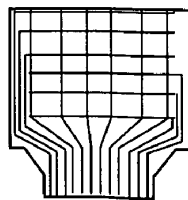


Fig. 7b

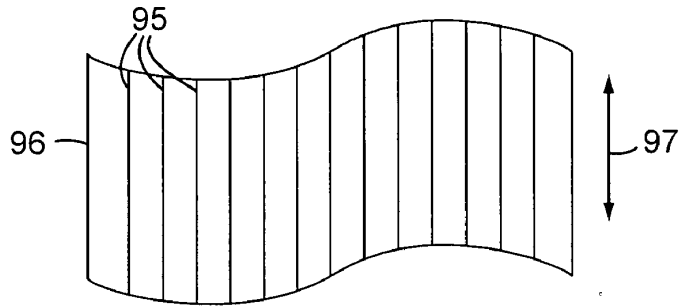


Fig. 8

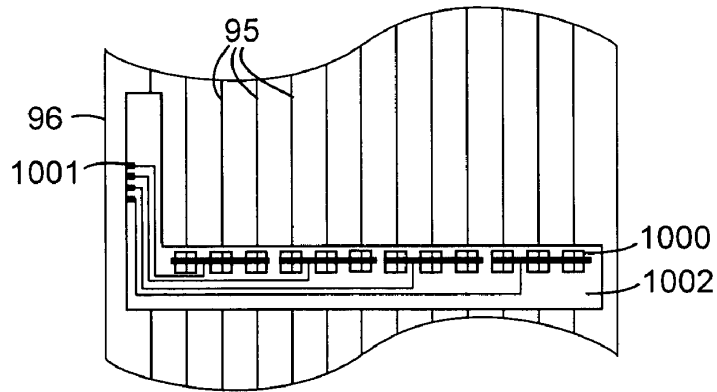


Fig. 9

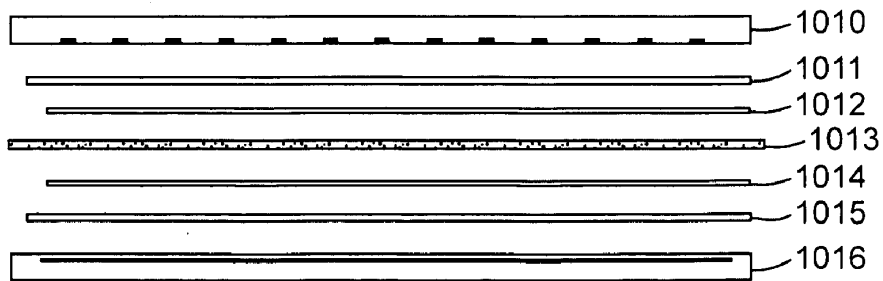


Fig. 10

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