

13. The resistive touch screen claimed in claim 1, wherein the conductivity of the layer having variable conductivity is determined by a variable composition of the layer.

14. The resistive touch screen claimed in claim 1, wherein the substrate is a substrate or cover of a flat-panel display.

15. The resistive touch screen claimed in claim 14, wherein the flat-panel display device is an OLED display.

16. The resistive touch screen claimed in claim 6, wherein the layer of variable conductivity material has variable transparency and/or color in the touch area; and further comprising means for driving a display associated with the touch screen to compensate for the variable transparency and/or color of the touch screen.

17. The resistive touch screen claimed in claim 1, wherein the touch screen is four wire touch screen and wherein both the first and second layers of conductive material have a variable conductivity.

18. The resistive touch screen claimed in claim 1, wherein the touch screen is a five wire touch screen.

19. A method of making a resistive touch screen, comprising the steps of:

- a) providing a transparent substrate defining a touch area;
- b) forming a first layer of conductive material on the substrate extending over the touch area;
- c) forming an electrical connection to the first layer of conductive material;
- d) providing a flexible transparent cover sheet;
- e) forming a second layer of conductive material on the flexible cover sheet;
- f) forming an electrical connection to the second layer of conductive material;
- g) mounting the flexible cover sheet in spaced apart relationship with respect to the substrate, such that a touch in the touch area will result in an electrical contact between the first and second layers at the point of touch; and
- h) wherein at least one of the first or second layers of conductive material has a variable conductivity.

20. The method claimed in claim 19, wherein the at least one layer of conductive material defines a region of uniform conductivity covering the touch area and an edge area having a higher conductivity than the uniform conductivity, the electrical connection to the at least one layer being made to the edge area.

21. The method claimed in claim 20, wherein the edge area has a variable conductivity effective to linearize electric fields in the touch area of the at least one layer of conductive material

22. The method claimed in claim 19, wherein the at least one layer of conductive material has a variable conductivity in the touch area effective to linearize electric fields in the layer of conductive material in the touch area.

23. The method claimed in claim 19, wherein both the first and second conductive layers have a variable conductivity.

24. The method claimed in claim 19, wherein the layer having variable conductivity comprises ITO.

25. The method claimed in claim 19, wherein the layer having variable conductivity comprises a conductive polymer.

26. The method claimed in claim 25, wherein the layer having variable conductivity comprises polythiophene.

27. The method claimed in claim 19, wherein the conductivity of the layer having variable conductivity is determined by the thickness of the layer.

28. The method claimed in claim 19, wherein the conductivity of the layer having variable conductivity is determined by the composition of the layer.

29. The method claimed in claim 19, wherein the substrate is a substrate or cover of a flat-panel display.

30. The method claimed in claim 29, wherein the flat-panel display device is an OLED display.

31. The method claimed in claim 19, wherein the substrate or cover is provided in the form of a web of transparent flexible material and the variable conducting layer is deposited on the web using a roll-to-roll continuous process and individual substrates or covers are singulated from the web after deposition of the variable conducting layer.

32. The method claimed in claim 19, wherein the variably conducting layer is deposited using a thermal transfer process.

33. The method claimed in claim 19, wherein the variably conducting layer is formed by depositing a conductive pattern using an ink-jet process.

34. The method claimed in claim 19, wherein the variably conducting layer is formed by depositing a conductive pattern using a sputtering process.

35. The method claimed in claim 19, wherein the variably conducting layer is formed by depositing a conductive pattern using a coating process.

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