

mation towards the second transparent, conductive sheet due to a touch force without contacting the second transparent, conductive sheet so as to produce a change in capacitance between the first and second transparent, conductive sheets; and

a touch screen controller coupled to the first and the second conductive sheets, wherein the touch screen controller drives one of the first and second conductive sheets with an electrical signal referenced to the other of the first and second conductive sheets and measures capacitive current flow between the first and second conductive sheets; and

a display, disposed below the touch screen, for displaying information.

45. The touch screen display system of claim 44, wherein the display is a liquid crystal display, a light emitting diode display, a plasma display or a cathode ray tube display.

46. The touch screen display system of claim 44, wherein the controller is arranged to detect a touch made on the touch screen relative to information displayed on the display.

47. The touch screen display system of claim 44, further comprising a processor coupled to receive touch location information from the touch screen controller and to the display for controlling the information displayed on the display.

48. The system of claim 47, further comprising:

one or more data storage devices coupled to the processor for storing data; and

one or more input/output devices for transferring information to and from the controller.

49. The system of claim 44, further comprising circuitry for coupling the processor to a network.

50. The system of claim 44, wherein the touch screen controller is coupled to the first and second transparent, conductive sheets in a closed loop.

51. A system for sensing a location of a touch on a touch sensor, comprising:

means for sensing a change in capacitance between a first transparent, conductive sheet and a second transparent, conductive sheet when at least a portion of the first transparent, conductive sheet is moved towards the second transparent, conductive sheet; and

means for determining the two-dimensional location of the touch from signals derived from the change in capacitance between the two transparent conductive sheets.

52. A touch sensor comprising:

two transparent, electrically continuous conductive layers disposed in a touch area and defining a gap between the two layers;

wherein, a location of a touch input is determined by a change in capacitance between the two layers.

53. A touch sensor as recited in claim 52, wherein the change in capacitance occurs when the touch input locally flexes one conductive layer towards the other conductive layer.

54. A touch sensor as recited in claim 52, wherein the transparent, electrically continuous conductive layers are formed from a metal oxide.

55. A touch sensor as recited in claim 52, wherein the transparent, electrically continuous conductive layers are formed from a conductive polymer.

56. A touch sensor as recited in claim 52, further comprising a gap filler material disposed in the gap between the two transparent, electrically continuous conductive layers.

57. A touch sensor as recited in claim 52, further comprising spacers disposed in the gap between the two transparent, electrically continuous conductive layers.

58. A touch sensor as recited in claim 52, wherein the location of the touch input is a two dimensional location.

59. A touch sensor as recited in claim 52, further comprising a protective layer on a surface of at least one of the transparent, electrically continuous conductive layers facing the gap.

60. A touch sensor as recited in claim 52, further comprising a controller electrically coupled to the two transparent, electrically continuous conductive layers to determine the location of the touch.

61. A touch sensor as recited in claim 60, wherein the controller drives one of the transparent, electrically continuous conductive layers with an electrical signal referenced to the other of the transparent, electrically continuous conductive layers, and measures capacitive current flow between the transparent, electrically continuous conductive layers.

62. A touch sensor as recited in claim 52, further comprising a display unit disposed to display an image through the two transparent, electrically continuous conductive layers to a viewer.

63. A touch sensor as recited in claim 62, further comprising a processor coupled to the display unit to process information and direct information display signals to the display unit.

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