

displays in applications where minimizing reflections is important. For example, when a display and touch screen are used outdoors, the display must be readable in a wide range of ambient light conditions, including direct sunlight and darkness. Examples of such applications include outdoor ATM machines, ticketing machines, and gasoline pumps. Where sunlight readability is required, a polarizer touch screen's reduced reflections become a major benefit worth the added cost of a polarizer.

[0046] Although specific features of the invention are shown in some drawings and not in others, this is for convenience only as each feature may be combined with any or all of the other features in accordance with the invention. The words "including", "comprising", "having", and "with" as used herein are to be interpreted broadly and comprehensively and are not limited to any physical interconnection. Moreover, any embodiments disclosed in the subject application are not to be taken as the only possible embodiments.

[0047] Other embodiments will occur to those skilled in the art and are within the following claims:

What is claimed is:

1. A topsheet for a touch screen comprising
  - a support layer having a touch surface and a second surface opposite the touch surface;
  - a polarizer layer having a first surface and a second surface with the first surface in contact with the second surface of said support layer; and
  - a first conductive layer in contact with the second surface of said polarizer.
2. The topsheet structure of claim 1 wherein the support layer is a polyester sheet.
3. The topsheet structure of claim 1 wherein the support layer is a polycarbonate sheet.
4. The topsheet structure of claim 1 wherein the polarizer layer includes a K type polarizer.
5. The topsheet structure of claim 1 including a first hardcoat layer in contact with the second surface of said polarizer layer and said first conductive layer is in contact with said first hardcoat layer.
6. The topsheet structure of claim 5 wherein said first hardcoat layer has a roughened finish.
7. The topsheet structure of claim 5 including an adhesion promoting agent in contact with the second surface of said polarizer layer.
8. The topsheet structure of claim 1 including a second hardcoat layer in contact with the touch surface of said support layer.

9. The topsheet structure of claim 1 wherein said first conductive layer includes a plurality of discrete sections of a conductive material.

10. The topsheet structure of claim 1 wherein the touch screen is a resistive film type touch screen and said first conductive layer engages a second conductive layer of the touch screen.

11. A method of manufacturing a topsheet for a touch screen comprising

providing a support layer having a touch surface and a second surface opposite the touch surface;

laminating a polarizer layer to the touch surface of said support layer, said polarizer layer having a top surface and a bottom surface; and

coating the bottom surface of said polarizer layer with at least a conductive layer.

12. The method of manufacturing a topsheet of claim 11 further comprising applying a first hardcoat layer to the bottom surface of said polarizer layer prior to said coating step.

13. The method of manufacturing a topsheet of claim 12 further comprising applying an adhesion promoting agent to the bottom surface of said polarizer prior to the step of applying said first hardcoat layer.

14. The method of manufacturing a topsheet of claim 12 wherein said hardcoat layer includes a rough surface.

15. The method of manufacturing a topsheet of claim 11 further comprising coating the touch surface of said support layer with a second hardcoat layer.

16. The method of manufacturing a topsheet of claim 12 wherein said coating step is a vacuum sputtering process.

17. The method of manufacturing a topsheet of claim 16 further comprising plasma etching said first hardcoat layer prior to said vacuum sputtering process.

18. The method of manufacturing a topsheet of claim 11 further comprising applying at least one thin film metal oxide layer to the bottom surface of said polarizer layer prior to said coating step.

19. The method of manufacturing a topsheet of claim 12 further comprising applying at least one thin film metal oxide layer to said first hardcoat layer prior to the coating step.

20. The method of manufacturing a topsheet of claim 11 wherein said coating step is a vacuum sputtering process.

21. The method of manufacturing a topsheet of claim 20 further comprising plasma etching said polarizer layer prior to said coating step.

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