

an electronic component with the conductive adhesive to provide an electrical connection between the electronic component and the conductive nanowire layer.

[0005] In another embodiment, the present disclosure is directed to an electronic assembly including a flexible substrate having thereon a pattern of conductive nanowires, wherein the conductive nanowires are overlain by a layer of a resist matrix material; a conductive adhesive on the layer of resist matrix material; and an electrical contact of an electronic component in contact with the conductive adhesive, wherein the conductive adhesive comprises a transfer tape, and wherein the transfer tape comprises a first side having thereon a first conductive adhesive layer contacting the layer of resist matrix material, and a second side opposite the first side, wherein the second side comprises a second conductive adhesive layer contacting the electrical contact of the electronic component, further wherein the first conductive adhesive layer comprises a matrix of an adhesive comprising metal particles, wherein the adhesive comprises a pressure sensitive adhesive, a thermally bonded adhesive and combinations thereof, and wherein the metal particles in the first conductive adhesive layer contact nanowires protruding from the conductive pattern and the resist matrix material.

[0006] In yet another embodiment, a touch screen display includes a liquid crystal display and an electronic assembly. The electronic assembly includes a glass substrate on the liquid crystal display, wherein the glass substrate has thereon a pattern of conductive nanowires. The conductive nanowires are overlain by a layer of a resist matrix material. A conductive adhesive resides on the layer of resist matrix material; and an electrical contact of a flexible circuit is in contact with the conductive adhesive. A flexible transparent surface overlies the electronic assembly.

[0007] The details of one or more embodiments of the invention are set forth in the accompanying drawings and the description below. Other features, objects, and advantages of the invention will be apparent from the description and drawings, and from the claims.

BRIEF DESCRIPTION OF DRAWINGS

[0008] FIG. 1 is a schematic, cross-sectional view of a conductive nanowire layer on a substrate, wherein the conductive nanowire layer is overlain by a patterned resist matrix material.

[0009] FIG. 2 is a schematic, cross-sectional view of the construction of FIG. 1 overlain by a strippable polymer layer.

[0010] FIG. 3 is a schematic, cross-sectional view of the construction of FIG. 2 following removal of the strippable polymer layer.

[0011] FIG. 3A is a schematic, cross-sectional view of a portion of the conductive nanowire layer following removal of the strippable polymer layer, and illustrating protruding nanowires.

CLAIMS

1. An electronic assembly, comprising:
 - a flexible substrate comprising thereon a pattern of conductive nanowires, wherein the conductive nanowires are overlain by a layer of a resist matrix material;
 - a conductive adhesive on the layer of resist matrix material; and
 - an electrical contact of an electronic component in contact with the conductive adhesive, wherein the conductive adhesive comprises a transfer tape, and wherein the transfer tape comprises a first side having thereon a first conductive adhesive layer contacting the layer of resist matrix material, and a second side opposite the first side, wherein the second side comprises a second conductive adhesive layer contacting the electrical contact of the electronic component, further wherein the first conductive adhesive layer comprises a matrix of an adhesive comprising metal particles, wherein the adhesive comprises a pressure sensitive adhesive, a thermally bonded adhesive and combinations thereof, and wherein the metal particles in the first conductive adhesive layer contact nanowires protruding from the conductive pattern and the resist matrix material.
2. The electronic assembly of claim 1, wherein the resist matrix material has a thickness of about 10 nanometers to about 300 nanometers.
3. The electronic assembly of claim 1, wherein the resist matrix material has a thickness of about 40 nanometers to about 200 nanometers.
4. The electronic assembly of claim 1, wherein the metal particles comprise silver, gold, copper, aluminum and combinations thereof.
5. The electronic assembly of any of claims 1-4, wherein the electronic component comprises a flexible circuit.