CLAIMS

1. An electronic article comprising:

a substrate;

a conductive element adjacent to the substrate;

a high dielectric composite, having a first and a second surface, the first surface adjacent to at least a portion of the conductive element; and

an electrically-active layer which is adjacent to at least portion of the second surface of the high dielectric composite,

wherein the high dielectric composite comprises:

a polymeric binder,

from 1 to 80 volume percent of particulate filler retained in the binder,

wherein the filler comprises particles that include:

an electrically-conducting layer; and

an insulating layer substantially surrounds the electrically-conducting layer, and

wherein the electrically-active layer is in electrical communication with the conductive element.

2. An electronic article according to claim 1, wherein the substrate is polymeric material selected from the group consisting of polyimide, polyester, polyethylene, or a combination thereof.

3. An electronic article according to claim 1, wherein the high dielectric composite has a dielectric constant of from about 4 to about 50.

4. An electronic article according to claim 1, wherein the filler comprises particles that further comprise a core body.

5. An electronic article according to claim 1, wherein electrically-conducting conducting layer comprises a metal, a metal alloy, or a conductive metal oxide.

6. An electronic article according to claim 1 further comprising a transparent electrode in contact with the electrically-active layer.

7. A method of assembling a display device comprising:

disposing a conductive element adjacent to a substrate to form a conductive substrate;

disposing a transparent conductor adjacent to a transparent substrate;

disposing an electrically-active layer adjacent to the transparent conductor to form a transparent electrically-active substrate;

applying a high dielectric composite adjacent to either the conductive element on the conductive substrate, the electrically-active layer on the transparent electrically-active substrate or both; and

laminating the conductive substrate to the transparent electrically-active substrate so that the high dielectric composite is adjacent to both the conductive element on the conductive substrate and the electrically-active layer on the transparent electrically-active substrate to form the display device.

CLAIMS

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a substrate;

a conductive element adjacent to the substrate;

a high dielectric composite, having a first and a second surface, the first surface adjacent to at least a portion of the conductive element; and

an electrically-active layer which is adjacent to at least portion of the second surface of the high dielectric composite,

wherein the high dielectric composite comprises:

a polymeric binder,

from 1 to 80 volume percent of particulate filler retained in the binder,

wherein the filler comprises particles that include:

a core body;

an electrically-conducting layer; and

an insulating layer substantially surrounding the electrically-conducting layer, and

wherein the electrically-active layer is in electrical communication with the conductive element.

2. An electronic article according to claim 1, wherein the substrate is polymeric material selected from the group consisting of polyimide, polyester, polyethylene, or a combination thereof.

3. An electronic article according to claim 1, wherein the high dielectric composite has a dielectric constant of from about 4 to about 50.

4. An electronic article according to claim 1, wherein the filler comprises particles that further comprise a core body.

5. An electronic article according to claim 1, wherein electrically-conducting conducting layer comprises a metal, a metal alloy, or a conductive metal oxide.

6. An electronic article according to claim 1 further comprising a transparent electrode in contact with the electrically-active layer.

7. An electronic article comprising:

a substrate;

a conductive element adjacent to the substrate;

a high dielectric composite, having a first and a second surface, the first surface adjacent to at least a portion of the conductive element; and

an electrically-active layer which is adjacent to at least portion of the second surface of the high dielectric composite,

wherein the high dielectric composite comprises:

a polymeric binder,

from 1 to 80 volume percent of particulate filler retained in the binder,

wherein the filler comprises solid particles that include an electrically-conducting material and an intrinsic electrically-conducting layer as the outer surface of the particle; and

an insulating layer substantially surrounding the electrically-conducting layer, and

wherein the electrically-active layer is in electrical communication with the conductive element.