TRANSPARENT CONDUCTIVE MULTILAYER ASSEMBLY

BACKGROUND

Consumer electronic devices frequently employ touch screen displays where good electrical and optical properties are required simultaneously.

SUMMARY

In broad summary, herein is disclosed a transparent multilayer assembly comprising a transparent organic polymeric flexible substrate having first and second, opposed major surfaces, a transparent conductive layer ~~on the first major surface of the substrate and an antireflective layer on the second major surface of the substrate~~having first and second, opposed major surfaces with the first major surface of the transparent conductive layer being disposed on, and in direct contact with, the first major surface of the substrate, and an antireflective layer having first and second, opposed major surfaces with the first major surface of the antireflective layer being disposed on, and in direct contact with, the second major surface of the transparent organic polymeric flexible substrate.

These and other aspects will be apparent from the detailed description below. In no event, however, should this broad summary be construed to limit the claimable subject matter, whether such subject matter is presented in claims in the application as initially filed or in claims that are amended or otherwise presented in prosecution.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a cross section side schematic view of an exemplary transparent multilayer assembly as disclosed herein.

Fig. 2 is a cross section side schematic view of an exemplary transparent multilayer assembly in which a transparent conductive layer of the assembly is comprised of a transparent conductive multilayer stack.

Fig. 3 is a cross section side schematic view of the transparent multilayer assembly of Fig. 1, combined with an optically clear adhesive to form an electromagnetic interference shielding assembly.

Fig. 4 is a cross section side schematic view of an exemplary touch screen display comprising a touch screen module comprising the electromagnetic interference shielding assembly of Fig. 3.

Like reference numbers in the various figures indicate like elements. Some elements may be present in identical or equivalent multiples; in such cases only one or more representative elements may be designated by a reference number but it will be understood that such reference numbers apply to all such identical elements. Unless otherwise indicated, all figures and drawings in this document are not to scale and are chosen for the purpose of illustrating different embodiments of the invention. In particular the dimensions of the various components are depicted in illustrative terms only, and no relationship between the dimensions of the various components should be inferred from the drawings, unless so indicated. Although terms such as "top", bottom", "upper", lower", "under", "over", "front", "back",

"outward", "inward", "up" and "down", and "first" and "second" may be used in this disclosure, it should be understood that those terms are used in their relative sense only unless otherwise noted. As used herein as a modifier to a property or attribute, the term "generally", unless otherwise specifically defined, means that the property or attribute would be readily recognizable by a person of ordinary skill but without requiring absolute precision or a perfect match (e.g., within +/- 20 % for quantifiable properties). The term "substantially", unless otherwise specifically defined, means to a high degree of approximation (e.g.,