[0084] **FIG. 10** is a partial front elevation view, in cross section of a display arrangement **170**, in accordance with one embodiment of the present invention. The display arrangement **170** includes an LCD display **172** and a touch screen **174** positioned over the LCD display **170**. The touch screen may for example correspond to the touch screen shown in **FIG. 9**. The LCD display **172** may correspond to any conventional LCD display known in the art. Although not shown, the LCD display **172** typically includes various layers including a fluorescent panel, polarizing filters, a layer of liquid crystal cells, a color filter and the like.

[0085] The touch screen **174** includes a transparent sensing layer **176** that is positioned over a first glass member **178**. The sensing layer **176** includes a plurality of sensor lines **177** positioned in columns (extend in and out of the page). The first glass member **178** may be a portion of the LCD display **172** or it may be a portion of the touch screen **174**. For example, it may be the front glass of the LCD display **172** or it may be the bottom glass of the touch screen **174**. The sensor layer **176** is typically disposed on the glass member **178** using suitable transparent conductive materials and patterning techniques. In some cases, it may be necessary to coat the sensor layer **176** with material of similar refractive index to improve the visual appearance, i.e., make more uniform.

[0086] The touch screen **174** also includes a transparent driving layer **180** that is positioned over a second glass member **182**. The second glass member **182** is positioned over the first glass member **178**. The sensing layer **176** is therefore sandwiched between the first and second glass members **178** and **182**. The second glass member **182** provides an insulating layer between the driving and sensing layers **176** and **180**. The driving layer **180** includes a plurality of driving lines **181** positioned in rows (extend to the right and left of the page). The driving lines **181** are configured to intersect or cross the sensing lines **177** positioned in columns in order to form a plurality of capacitive coupling nodes **182**. Like the sensing layer **176**, the driving layer **180** is disposed on the glass member using suitable materials and patterning techniques. Furthermore, in some cases, it may be necessary to coat the driving layer **180** with material of similar refractive index to improve the visual appearance. Although the sensing layer is typically patterned on the first glass member, it should be noted that in some cases it may be alternatively or additionally patterned on the second glass member.

[0087] The touch screen **174** also includes a protective cover sheet **190** disposed over the driving layer **180**. The driving layer **180** is therefore sandwiched between the second glass member **182** and the protective cover sheet **190**. The protective cover sheet **190** serves to protect the under layers and provide a surface for allowing an object to slide thereon. The protective cover sheet **190** also provides an insulating layer between the object and the driving layer **180**. The protective cover sheet is suitably thin to allow for sufficient coupling. The protective cover sheet **190** may be formed from any suitable clear material such as glass and plastic. In addition, the protective cover sheet **190** may be treated with coatings to reduce sticktion when touching and reduce glare when viewing the underlying LCD display **172**. By way of example, a low sticktion/anti reflective coating may be applied over the cover sheet **190**. Although the line layer is typically patterned on a glass member, it should be noted that in some cases it may be alternatively or additionally patterned on the protective cover sheet.

[0088] The touch screen **174** also includes various bonding layers **192**. The bonding layers **192** bond the glass members **178** and **182** as well as the protective cover sheet **190** together to form the laminated structure and to provide rigidity and stiffness to the laminated structure. In essence, the bonding layers **192** help to produce a monolithic sheet that is stronger than each of the individual layers taken alone. In most cases, the first and second glass members **178** and **182** as well as the second glass member and the protective sheet **182** and **190** are laminated together using a bonding agent such as glue. The compliant nature of the glue may be used to absorb geometric variations so as to form a singular composite structure with an overall geometry that is desirable. In some cases, the bonding agent includes an index matching material to improve the visual appearance of the touch screen **170**.

[0089] With regards to configuration, each of the various layers may be formed with various sizes, shapes, and the like. For example, each of the layers may have the same thickness or a different thickness than the other layers in the structure. In the illustrated embodiment, the first glass member **178** has a thickness of about 1.1 mm, the second glass member **182** has a thickness of about 0.4 mm and the protective sheet has a thickness of about 0.55 mm. The thickness of the bonding layers **192** typically varies in order to produce a laminated structure with a desired height. Furthermore, each of the layers may be formed with various materials. By way of example, each particular type of layer may be formed from the same or different material. For example, any suitable glass or plastic material may be used for the glass members. In a similar manner, any suitable bonding agent may be used for the bonding layers **192**.

[0090] **FIGS. 11A and 11B** are partial top view diagrams of a driving layer **200** and a sensing layer **202**, in accordance with one embodiment. In this embodiment, each of the layers **200** and **202** includes dummy features **204** disposed between the driving lines **206** and the sensing lines **208**. The dummy features **204** are configured to optically improve the visual appearance of the touch screen by more closely matching the optical index of the lines. While index matching materials may improve the visual appearance, it has been found that there still may exist some non-uniformities. The dummy features **204** provide the touch screen with a more uniform appearance. The dummy features **204** are electrically isolated and positioned in the gaps between each of the lines **206** and **208**. Although they may be patterned separately, the dummy features **204** are typically patterned along with the lines **206** and **208**. Furthermore, although they may be formed from different materials, the dummy features **204** are typically formed with the same transparent conductive material as the lines as for example ITO to provide the best possible index matching. As should be appreciated, the dummy features will more than likely still produce some gaps, but these gaps are much smaller than the gaps found between the lines (many orders of magnitude smaller). These gaps, therefore have minimal impact on the visual appearance. While this may be the case, index matching materials may be additionally applied to the gaps between the dummy features to further improve the visual appearance