pad **24**B may be demarked by features, shown as nodules **302**. Nodules **302** may comprise, in total, tactile elements **70** (FIG. **2**). The outlines may be silk screened on the surface of touchpad **24**B. As touchpad **24**B provides a surface having a number of first input regions, an embodiment provides a mapping of regions associated with keys in touchpad **24**B with expected signals generated by touchpad **24**B when such areas are "touched". Such signals may be processed by tactile adjustment module **48**G. Keys in touchpad **24**B may be partitioned in groups, and as such, physical barriers, ridges or separations may be provided incorporated into ridges **304** that are provided within and/or outside the display region in touchpad **24**B and/or are located above or underneath nodules **302**. Ridges **304** may be used to define any areas of interest in touchpad **24**B, such as boundaries for one or more keys in touchpad **24**B. Ridges **304** may extend upwardly from the surface of touchpad **24**B and may define a boundary that provides protection of touchpad **24**B from being marked up from things striking it. There may be one or more nodules **302** associated with a given region in touchpad **24**B. Each of the nodules may be a second of two regions used to analyze user actions. When there is a plurality of nodules **302** associated with such a given region, each of the nodules **302** may be of the same size, structure and composition or two or more of such nodules may have different sizes, structures and compositions. In one embodiment, one or more nodules **302** may be formed from a clear non-conductive material, such as polycarbonate plastic. It may have an optimum dielectric. The physical form of such nodules **302** may be that they are at least partially collapsible, wherein they have at least a slight elastic property. Nodule **302** may be formed with a slight well in its upper surface, such that when nodule **302** is depressed, it becomes flush (or is compressed or moved towards) to the surface of the touchpad. Use of a non-conductive material in the feature may assist in the sensing of a finger thereon in a capacitive touchpad. Depending on the composition of the overlay on touchpad **24**B (or the presence of an overlay), the thickness of the printed circuit board, dielectrics etc., the capacitance values for a finger being pressed or scanned across the touchpad **24**B may vary considerably. However, typically, the capacitance value is value, e.g. in the neighborhood of any of the following ranges: about 100 pF or less; about 50 pF or less; and about 10 pF or less. Typically calibration and sensitivity tuning must be done once a touchpad **24**B is constructed to determine an operating range of signal levels as the fingers are scanned and as pressure is applied to the touchpad **24**B. Such measurements may be determined for a particular touchpad and used to discern and distinguish from input signals generated by the touchpad.

[0073] Touchpad **24**B may have an indium titanium oxide (ITO) layout providing a piezoelectric sensing system for sensing when a user is touching the touchpad. Such an implementation utilizes a capacitive-sensing based circuit. The layout may be implemented in a multiple layer pad, see for example Clearpad (trademark) products from Synaptics Inc. Additionally or alternatively a single layer of buttons may be provided. One system utilizing buttons has the electrode surface of the touchpad extending out slightly beyond nodules **302**. In this context, a button is a single element or region of elements that is defined to have a single function attributed to it. For example, a button may be one or more keys in a numeric keypad, which are used to distinguish the numeric keypad from neighbouring keys in the keypad (such as alphabetic keys or directional keys etc.).

[0074] Additional data and signal processing may be provided for feedback signals provided by the touchpad when a finger is place on nodules **302**. For example, for a dual layer high resolution pad, centroid calculations and algorithms may be provided to identify a notional center region of the contact area of a footprint of one or more fingertips. For example, a footprint may be provided for each finger and the thumb of a hand, and for different sizes of hands (e.g. a fingers on child's hand, fingers on an adolescent's hand, fingers of an average adult male or female, finger's of a large adult male's hand, a hand with thin fingers, a hand with thick fingers, etc.) and for different pressures being applied for a given size of hand (e.g. light pressure, medium pressure and firm pressure, etc.). The footprint mapping may be used to identify and modify characteristics and sizes of the first and second regions used to evaluate user actions. Also a sensitivity factor may be provided relating to the amount of pressure that needs to be applied by a finger to a nodule **302** before it is registered as legitimate signal for further processing. For example, sensitivity may be set to a high level so that full contact is not required to register a finger. This may be useful in accommodating for persons having hands or fingers with calluses and/or insufficient fleshy skin to envelop around the physical feature of the nodule **302** and contact the touchpad. Such processing may be performed by tactile adjustment application **48**G with or without calculations conducted on DSP **58**.

[0075] Touchpad **24**B may incorporate a display component, such as a cholesteric LCD. A cholesteric LCD is bistable and can be programmed to have its display to be set and then the power may be disengaged from touchpad **24**B. As such, no power or very little power is required to maintain an image of the key for touchpad **24**B. In this configuration, a cholesteric substrate for touchpad **24**B provides a pliable surface that may be deflected, thereby allowing it to be depressed when a key in touchpad **24**B is pressed.

[0076] Referring to FIG. **4**, an exploded cross-sectional view of components comprising elements underneath a region defining a key in touchpad **24**B is shown. It will be appreciated that the embodiment may be for a single key, a group of keys or all keys in touchpad **24**B. This key can be associated with a first input region for touchpad **24**B. As noted before touchpad **24**B has capacitive circuits which allow it to detect when an external finger (or other body part) is touching its surface. As such, the output signals can be analyzed to determine when a region defining a key is activated on touchpad **24**B. Additional regions may be defined for additional keys in touchpad **24**B. In an embodiment, key **400** is shown. For a given key **400**, touchpad **24**B has circuitry to detect a change in capacitance (and/or resistance) when a user's finger touches the surface of touchpad **24**B.

[0077] From FIG. **3**, one physical feature relating to tactile elements **70** as described above in one embodiment is provided as nodule **302** which is mounted on top of the surface of touchpad **24**B. Nodule **302** may be glued or welded thereon. It may also be integrally formed with touchpad **24**B. The nodule itself provides in one embodiment a second input region that is used to provide tactile feedback to a user when a user action is to touch the region. The second region may be located in a part of nodule **302**. Nodule **302** may comprise a polycarbonate material or the like. It may be clear, tinted or opaque. The size, dimensions, texture and shape of nodule **302** may vary according to specific design requirements. The shape of nodule **302** may be rectanguloid, cylindrical, spherical, conical or any combination of or variation on those