trode **138** located on each of the protrudent portions **134** is contacted with the conductive pad **158** of the net-shaped metallic lines **125**. Referring to FIG. **7**, the touch position divides the lengthwise metallic lines into the first and second resistance lines (the first resistance line has the first resistance $R_1$, and the second resistance line has the second resistance $R_2$), and divides the widthwise metallic lines into the third and fourth resistance lines (the third resistance line has the first resistance $R_3$, and the fourth resistance line has the fourth resistance $R_4$). The voltages of divided resistance lines are proportional to resistance, and are shown in the following equations:

$$V_x = V \times R_3/(R_3+R_4)$$

$$V_y = V \times R_1/(R_1+R_2)$$

Wherein V, is the voltage of the third widthwise resistance line, $V_y$ is the voltage of the first lengthwise resistance line, and V is rated voltage (e.g. 5 volts). If the diameters of the resistance lines are the same, the voltages of divided resistance lines are proportional to the lengths of divided resistance lines, thereby calculating a coordinate of the touch position.

**[0032]** The relative circuit of the touch-sensitive functions is designed in the touch-sensitive LCD panel of the present invention. When the touch-sensitive LCD panel is manufactured, the circuit of the touch-sensitive function can be finished simultaneously. The touch-sensitive LCD panel of the present invention has no optical loss, but has touch-sensitive function. Furthermore, it is not necessary to extra add a conductive layer and a flat insulating layer so as not to increase manufacture cost and time. In addition, the spacers and the protrudent portions can be made by the same material and by the same manufacture processes so as not to also increase manufacture time.

**[0033]** Referring to FIG. **8**, according the TFT substrate **112** in this embodiment, the electrode layer **124** can include a plurality of scan lines **162** and data lines **164**, which are disposed above the transparent substrate **120**. The scan and data lines **162**, **164** cross each other, thereby defining a plurality of pixel regions **160**. The widthwise metallic lines **152** are parallel to the scan lines **162**, and the lengthwise metallic lines **154** are parallel to the data lines **164**. The widthwise metallic lines **152** and the scan lines **162** are located the same level, and the lengthwise metallic lines **154** and the data lines **164** are located the same level. Those skilled in the art understand that a second insulating layer (not show) is disposed between the scan lines **162** and the data lines **164**. Thus, the second insulating layer is also disposed between the widthwise metallic lines **152** and the lengthwise metallic lines **154**. The conductive pads **158** are electrically connected to the net-shaped metallic lines **125** by forming a plurality of plated through holes (PTHs) **172**, **174** in the first and second insulating layers and forming a plurality of metallic extension layers **176** on the first insulating layer. For example, each conductive pad **158** is electrically connected to the widthwise metallic line **152** by the metallic extension layer **176** and the PTH **172**, and is electrically connected to the lengthwise metallic line **154** by the metallic extension layer **176** and the PTH **174**. The metallic extension layers **176** can be made of transparent metal. Or, referring to FIG. **9**, in an alternate embodiment, each conductive pad **158** is directly electrically connected to the widthwise metallic line **152** and the lengthwise metallic line **154**. In addition, the arrangement density of the widthwise metallic line **152** and the lengthwise metallic line **154** depends on the requirement, e.g. one widthwise metallic line **152** and one lengthwise metallic line **154** per one, four or nine pixels **160** are arranged.

**[0034]** Referring to FIG. **10**, according to the TFT substrate **112** in another embodiment, the electrode layer **124** can also include a plurality of scan lines **162** and data lines **164**, which are disposed above the transparent substrate **120**. The widthwise metallic lines **152** and the lengthwise metallic lines **154** are located above the scan lines **162**. Those skilled in the art understand that a third insulating layer (not show) is disposed between the scan lines **162** and the data lines **164**. The conductive pads **158** are electrically connected to the net-shaped metallic lines **125** by forming a plurality of plated through holes (PTHs) **182** in the third insulating layer. For example, each conductive pad **158** is directly electrically connected to a connection between the widthwise metallic line **152** and the lengthwise metallic line **154** by the single PTH **182**.

**[0035]** Referring to FIG. **11**, according to the TFT substrate **112** in a further embodiment, the electrode layer **124** can include a plurality of pixel electrodes **166**, which are disposed above the transparent substrate **120**. Referring to FIG. **12**, the widthwise metallic lines **152** and the lengthwise metallic lines **154** are located on the same level, and are exposed from the first insulating layer. Thus, the conductive pads **158** can be directly electrically connected to the net-shaped metallic lines **125** without any PTH. For example, each conductive pad **158** is directly disposed at a connection between the widthwise metallic line **152** and the lengthwise metallic line **154**.

**[0036]** Referring to FIG. **13**, it depicts a method for calculating a coordinate of a touch position of a touch-sensitive LCD panel according to an embodiment of the present invention. In step **200**, a TFT substrate is provided, wherein the TFT substrate includes a net-shaped metallic lines and a plurality of conductive pads, and conductive pads are arranged in array manner. The net-shaped metallic lines include a plurality of widthwise metallic lines, lengthwise metallic lines and connections constituted by crosses of the widthwise metallic lines and the lengthwise metallic lines. The conductive pads are electrically connected to the net-shaped metallic lines. In step **202**, a CF substrate is provided, and is opposite to the TFT substrate. The CF substrate includes a plurality of spacers, a plurality of protrudent portions and a transparent electrode, wherein the spacers are adapted to keep the first predetermined gap between the TFT substrate and the CF substrate, there is the second predetermined gap between each protrudent portion and the corresponding conductive pad, and the transparent electrode covers the spacers and the protrudent portions. In step **204**, the transparent electrode located on the protrudent portion is electrically contacted with the corresponding conductive pad according to a touch position, wherein the touch position divides the widthwise metallic lines to the first and second widthwise resistance lines, and divides the lengthwise metallic lines into the first and second lengthwise resistance lines. In step **206**, a coordinate of the touch position is calculated by voltages of the divided resistance lines (e.g. the first and second widthwise resistance lines and the first and second lengthwise resistance lines) of the net-shaped metallic lines being proportional to lengths of the divided resistance lines.

**[0037]** Referring to FIG. **14**, it depicts a method for manufacturing a TFT substrate according to an embodiment of the present invention. In step **300**, a transparent substrate is provided. In step **302**, net-shaped metallic lines are formed on the transparent substrate, wherein the net-shaped metallic lines