

as a function of a plurality of distinct digital codes, to initiate application of each of the plurality of modulation signals to said plurality of electrodes via the drive circuitry, to demodulate a sensed signal received from said sensing region using the digital codes to discriminate electrical effects produced by the object upon at least one sensing electrode, and to determine the position-based attribute of the object with respect to the plurality of electrodes from the electrical effects.

40. The device of claim 39 wherein the drive circuitry comprises an analog signal generator configured to generate a carrier signal and a modulator configured to amplitude modulate the carrier signal with each of the plurality of distinct digital codes to thereby produce the unique modulation signals.

41. The device of claim 39 wherein the touch sensitive device further comprises a substantially rigid surface configured to provide tactile feedback to the user.

42. The device of claim 41 wherein the substantially rigid surface is further configured to provide the tactile feedback without substantially affecting the electrical effects.

43. The device of claim 41 wherein the substantially rigid surface is further configured to provide the tactile feedback without substantially affecting the positions of the plurality of electrodes relative to each other.

44. The device of claim 39 wherein contact between the object and the touch-sensitive region reduces electrical coupling between at least two of the plurality of electrodes.

45. The device of claim 44 wherein the at least two of the plurality of electrodes comprise a first electrode having a

first orientation and a second electrode having a second orientation substantially perpendicular to the first orientation.

46. The device of claim 39 further comprising a capacitor electrically coupled to at least some of the plurality of electrodes and to the demodulator.

47. The device of claim 46 wherein the capacitor is configured to integrate charge received from the at least some of the plurality of electrodes.

48. The device of claim 39 wherein the object is a finger.

49. The device of claim 39 wherein the object is a stylus.

50. The device of claim 39 wherein the touch-sensitive region is formed on a flexible substrate.

51. A device for detecting a position-based attribute of an object with respect to a touch-sensitive region comprising a plurality of electrodes, the device comprising:

means for producing a plurality of distinct digital codes used to create a plurality of modulation signals applied to an associated at least one of the plurality of electrodes to obtain a resultant signal that is electrically affected by the position of the object;

means for demodulating the resultant signal using the plurality of distinct digital codes to thereby discriminate electrical effects produced by the object; and

means for determining the position-based attribute of the object with respect to the plurality of electrodes from the electrical effects.

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