

- [0240] Same where the rate of change (derivative) of the sensed value is used to determine the point of touch. (Uses the dielectric discontinuity theory.)
- [0241] A control means so programmed as to differentiate between a deliberate touch and an accidental touch or other interfering electrical signal using information from one or more untouched keys and the knowledge of the initial conditions of the system.
- [0242] A control means programmed to monitor the initial condition and sensitivity of each sensor and detect variations from those initial conditions by utilising a non-linear equation with reference to the initial conditions parameter and so normalising variations in sensitivity between differing sensor channels.
- [0243] KEY
- [0244] In the drawings, text corresponding to Figure references is as follows:
- [0245] FIG. 1:
- [0246] 101 Display Artwork
 - [0247] 102 Touch Pads
 - [0248] 103 Window
 - [0249] 104 Controller
 - [0250] 105 Connection to Computer
- [0251] FIG. 2:
- [0252] 106 Control
 - [0253] 107 OSC
 - [0254] 108 Flip/Flop
 - [0255] 109 x1
 - [0256] 110 Phase Delay
 - [0257] 111 xN
 - [0258] 114 ADC INPUT
 - [0259] 115 MUX
 - [0260] 116 MUX
 - [0261] 119 LOGIC
- [0262] FIG. 3:
- [0263] 130 A
 - [0264] 131 B
- [0265] FIG 4:
- [0266] 132 Distance
 - [0267] 133 Time
 - [0268] 134 Press
 - [0269] 135 Hold
 - [0270] 136 Release
 - [0271] 137 Liftoff
 - [0272] 138 Baseline
 - [0273] 139 Maximum Press
 - [0274] 140 Capacitance Rising
- [0275] FIG. 5:
- [0276] 150 For each key
 - [0277] 151 Do not key
 - [0278] 152 Select key
 - [0279] 153 Get Press Value
 - [0280] 154 Over Threshold
 - [0281] 155 Static Detect
 - [0282] 156 Delay
 - [0283] 157 Keypress Detected Once Before?
 - [0284] 158 Mode Check OK?
 - [0285] 159 PRESS DETECTED
- [0286] FIG. 6:
- [0287] 161 Centre Wire
 - [0288] 162 Frit
 - [0289] 163 Glass
 - [0290] 164 Braid
 - [0291] 165 Coax
- [0292] FIG. 7:
- [0293] 171 Finger
 - [0294] 172 Glass layer
 - [0295] 173 PCB Substrate
 - [0296] 174 Sensors detect finger at differential ranges
 - [0297] 175 Sensor plates
- [0298] FIG 8
- [0299] 181 Finger
 - [0300] 182 (=glass thickness)
- [0301] FIG 9:
- [0302] 191 Finger tip slides over surface
- [0303] FIG. 10:
- [0304] 201 MUX
- [0305] FIG 11:
- [0306] 211 finger
 - [0307] 212 sensors
- [0308] FIG. 13:
- [0309] 221 Buffer
 - [0310] 222 High Impedance Input
 - [0311] 223 Low Impedance Output
 - [0312] 224 Virtual Ground
 - [0313] 225 Sensor
 - [0314] 226 Incident RF Wave