

A new type of a large-area multi-touch tactile device operated by electrotactile stimulation

【Summary】:

A new type of large-area multi-touch haptic device operated by tactile stimulation is proposed.

【Design】:

The system consists of a DC power supply, a power amplifier, a microcontroller, a control circuit and a touch screen. The microcontroller Arduino Mega 2560 and the control circuit convert the DC power amplified by the power amplifier into different voltage pulses, and then send the signal to the designated anode on the touch panel, while turning the designated cathode on or off. (See the paper for specific design principles)

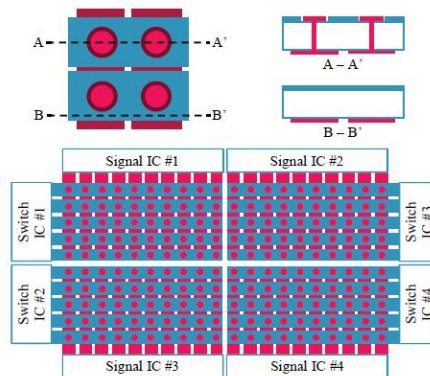


Figure 2. Simplified diagram and drawing of partial enlargement of the electrotactile touch panel with cathodes-surrounding anodes. Red parts are anodes and blue parts are cathodes.