

Surface Acoustic Wave Touch Panel

Surface Acoustic Wave (SAW for short), as implied in the name, uses ultrasonic wave as medium to locate position on the touch panel. SAW touch panel consists of ultrasonic transmitting transducer, ultrasonic receiving transducer, reflection stripes, and SAW touch controller. The controller first transmits 5MHz electric signal to transmitting transducer. Then the transducer converts the signal to ultrasonic wave and spreads throughout the touch panel. When the ultrasonic wave hits the reflection stripes, the wave changes the path and ultimately goes to the receiving transducer, and the receiving transducer converts the wave back to electrical signal and stores data into the controller. When finger touches the touch panel, it absorbs portion of the ultrasonic wave, resulting in energy difference between transmitting and receiving transducer. The controller then uses the energy difference to calculate the coordinate.

