IntelliTouch Technical Explanation



The IntelliTouch touch screen is a glass overlay with transmitting and receiving piezoelectric transducers for both the X and Y axes. The touch screen controller sends a five-megahertz electrical signal to the transmitting transducer, which converts the signal into ultrasonic waves within the glass. These waves are directed across the front surface of the touch screen by an array of reflectors. Reflectors on the opposite side gather and direct the waves to the receiving transducer, which reconverts them into an electrical signal— a digital map of the touch screen surface.

When you touch the screen, you absorb a portion of the wave traveling across it. The received signal is then compared to the stored digital map, the change recognized, and a coordinate calculated. This process happens independently for both the X and Y axes. By measuring the amount of the signal that is absorbed, a Z-axis is also determined. The digitized coordinates are transmitted to the computer for processing.



