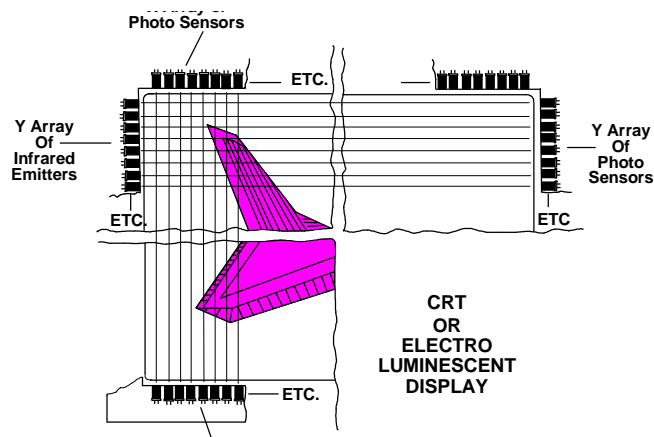


Optical Touch Screens



PRODUCT

SEP8736 and SDP8436 Series

APPLICATION DESCRIPTION

Touch-screens are computer interface devices fitted over a monitor to allow the user to interact by touching points on the display. user-friendly, the interface method is appearing in a number of settings including factory control, telephone operator assistance, brokerage services, point of sales displays, information kiosks, ATM banking, and training/simulation displays. There are three technologies used in touch-screens - optical, resistive and capacitive.

Optical touch-screen manufacturers often prefer the sidelooker package because of the ease of mounting into the surface surrounding the touch-screen with the light axis perpendicular to the base. With sidelooker emitter-detector pairs mounted along both edges of the touch-screen frame, a matrix of light beam intersections is created.

Resolution of the matrix is limited by the beam width of the light axes. False signal crosstalk may be created when the beam width of an emitter illuminates detectors other than its intended mate. This problem is minimized by reducing the effective beam angle. The Tight Beam Sidelooker (TBSL) answers this need for tight beam angle coupling.

In many applications, the optical touch-screen industry uses a multiplexing technique called "strobing" to sequentially probe each emitter-detector pair to see if its path has been interrupted. (Strobing is another method to avoid false signal crosstalk created when the beam width of an emitter illuminates detectors other than its intended mate.) TBSL still provides a unique benefit even when strobing is used. Unlike other sidelooker products, the efficiency of the GaAIAs chip and tight beam angle of the unique elliptical lensing of the TBSL extends the effective coupling range

to distances which easily accommodate the touch-screen application. Thus, the Tight Beam Sidelooker answers the need for efficient coupling in a sidelooker package.