

The alarm function of the dull black polymer, wrist cuff-sized DataLink™ Personal Artificial Intelligence Agent or PAI that Dr. Parks wore chimed. A flashing red reminder scrolled across the greenish amber-tinted, lower neuroptical interface display of his black wayfarer Spatial Computing Glasses or SCG sunglasses. The transparent micro LCD lenses also displayed scrolling news and an intuitive A.I. search engine data, splashing compressed pixilated bursts of data across the lower lenses and the sensorium of the user.

The upper left and right corners of the holographic wave guide lenses could be programmed to inform the wearer of the time in any time zone they preferred, the weather forecast, and acceptable UV and other radiation levels. Micro-cameras and earpiece pickups in the frame of the glasses, along with flexible, polymer-coated micro-screen adhesive throat-mike patches, all integrated into a cache before being distributed to either a user's portable or Q-net storage.

LCD is a liquid-crystal display, and uses thin-film nano-liquid crystal display (TFT-LCD) technology, which consists of a layer of liquid crystal sandwiched between two glass substrates; the upper glass substrate is a color filter. The lower glass layer is inlaid with electro-crystals. The electric field created by the electric current passing through the crystal makes the original rotational arrangement of the liquid crystal molecules twist, thus changing the rotational amplitude of the light passing through and shining on the color filter in different proportions, thus producing different colors. The nano-transparent screen film material (NTS)

is as thin as a human hair and capable of showing detailed images with a high degree of color and light clarity. It is light and flexible, and its transparency can be adjusted, with the screen capable of showing the most detail at its most opaque.

NTS is made in a roll-to-roll process in which a sheet of film is treated with tiny particles of titanium dioxide. These nanoparticles give the NTS its durability and improve the optical quality of the film, meaning images projected onto it remain clear. The film is layered with a crystal polymer, a polymer-dispersed liquid crystal (PDLC) film. By applying an electrical field to the crystals, the PDLC can be made more or less transparent, allowing the screen to become more opaque when users want to see more detail.

The manufacturing process is easy to replicate due to its relative simplicity. It is highly resistant to extreme heat and cold, meaning it can be used indoors and outdoors. The technology for manufacturing NTS is created through a combination of nanomaterials and nanomanufacturing technology.