



## 1979

### Development of solid-state image-sensing devices

#### ~ Packaging ~

With the popularization of VCR, video cameras were born. For broadcasting stations, vacuum tube type imaging tubes were used, but with the spread of handy cameras for home use, monochrome imaging device HE97211 was developed in 1979, and in 1981 a color device with  $384 \times 485$  pixels using a color filter was developed. The world's first "Semiconductor color camera for home use VK - C1000" was released by Hitachi.

After that, a CCD device (line sensor) which reads the photodiode signals have been developed, and image sensor devices have been introduced into OA/FA equipment, digital cameras, mobile phones with cameras, and so on.

The packages were side blaze multilayer ceramic packages, to which transparent glasses were sealed with adhesives after imaging device assembly.

The left side of the pictures below is a color video camera, and the two pictures to the right are the examples of line sensor devices.

