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are not attempting to render engineering or other professional services. If such
services are required, the assistance of an appropriate professional should be
sought.

collector junction

collector junction A semiconductor junction between the base and collector electrodes of a transistor. It is normally biased in the high-resistance direction, and the current through it is controlled by introducing minority carriers.

collector transition capacitance The capacitance across the collector-to-base transition region, in which the impurity concentration changes.

collimate To modify the paths of electrons in a flooding beam, or various rays of a scanning beam, to cause them to become more nearly parallel.

collimation 1. The precise alignment of the mechanical system of a radar antenna by comparison with an optical device aligned on known points in azimuth and elevation. 2. The process of focusing light rays or the paths of electrons or other particles into a parallel beam.

collimator A device that confines the elements of a beam within an assigned solid angle.

collimator lens 1. In optics, a glass or plastic lens that produces parallel rays of light from a diverging light source. 2. In an electron tube, electrodes that form electrons into a parallel beam.

collinear array An antenna array that consists of many half-wave dipoles mounted end to end and connected to operate in phase. It is also called a *linear array*.

collinear heterodyning An optical processing system whose correlation function is developed from an ultrasonic light modulator. The output signal is derived from a reference beam so that the two beams are collinear until they enter the detection aperture. Variations in optical path length then modulate the phase of both signal and reference beams simultaneously, and phase differences cancel out in the heterodyning process.

collision avoidance system [CAS] An airborne electronic system that provides automatic warning of a potential midair collision between planes.

collision-course homing A technique for aiming a defensive missile on a course calculated to intercept an incoming enemy missile based on the projection of the course, speed, and trajectory of the incoming missile, as determined by a computer. The input data, obtainable from radar or laser tracking, permits programming the defensive missile before its launch. The launch program can be supplemented by mid-course corrections sent by RF or laser signals.

colloidal graphite Powdered graphite, a form of carbon, suspended in water, glycerine, or other solvent for use as a conductive shield on the inside or outside surfaces of cathode-ray and other electron tubes for shielding and grounding purposes.

color A characteristic of light that can be specified in terms of luminance, dominant wavelength, and purity. Luminance is the magnitude of brilliance. Wavelength determines hue and ranges from about 4000 Å for violet to 7000 Å for red (400 to 700 nm). Purity corresponds to chroma or saturation and specifies vividness of a hue.

color balance Adjustment of the circuits that feed the three electron guns of a color picture tube to compensate for differences in light-emitting efficiencies of the three color phosphors on the screen of the tube.

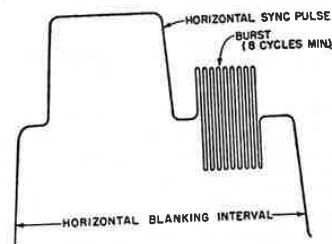
color-bar code A bar code based on one or more different bar colors in combination with black bars and white spaces, to increase the density of binary coding of data

printed on merchandise tags or directly on products for inventory control and other purposes.

color-bar generator A signal generator that delivers to the input of a color television receiver the signal needed to produce a color-bar test pattern on one or more channels.

color-bar test pattern A test pattern of different colored vertical bars used to check the performance of a color television receiver.

color burst A short series of oscillations at the chrominance subcarrier frequency of 3.579545 MHz, following each transmitted horizontal sync pulse in a color television system. This burst is a frequency reference for generating a continuous wave that is at the burst frequency and locked to it in phase. Also called *burst*.



Color burst.

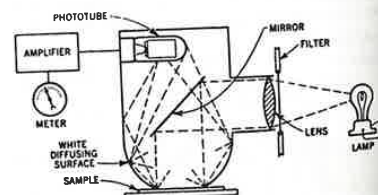
color-burst pedestal The rectangular pulselike component that is part of the color burst when the axis of the color-burst oscillations does not coincide with the back porch. Also called *burst pedestal*.

color-carrier reference *Chrominance-carrier reference.*

color code A system of colors that indicates the electrical value of a component or identifies terminals and leads. The EIA color codes are the standards for the electronics industry.

color coder *Matrix.*

color comparator A photoelectric instrument that compares an unknown color with a standard color sample for matching purposes. The sample and unknown can be placed alternately in the measuring position, or two identical measuring systems can be used to feed a null indicator. Also called *photoelectric color comparator*.



Color comparator: The sample and unknown are alternately placed in measuring position.

color contamination Poor rendition of color in a color television receiver, caused by incomplete separation of color component paths.