STAN GIBILISCO

THE ILLUSTRATED DICTIONARY OF Electronics

EIGHTH EDITION

Audio/Video
Consumer Electronics
Wireless Technology

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The
Illustrated Dictionary of
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The Illustrated Dictionary of Electronics

Eighth Edition

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conduit A hollow tube, made of plastic or metal, through which wires, cables, and other transmission media are fed.

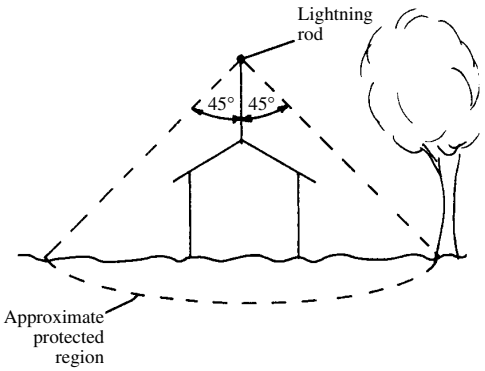
cone The conical diaphragm of a (usually dynamic) loudspeaker.

cone antenna An antenna in which the radiator is a sheet-metal cone or a conical arrangement of rods or wires.

Conelrad An early amplitude-modulation (AM) broadcast protocol, intended for use in the event of a nuclear war. Now replaced by the EMERGENCY BROADCAST SYSTEM.

cone marker A UHF marker beacon whose conical energy lobe radiates vertically from a radio-range beacon station. Aircraft in flight use such markers to accurately locate the beacon station.

cone of protection The zone surrounding a lightning rod, in which the chances of a lightning strike are greatly reduced. The cone has an apex angle of 45°, relative to the rod. Objects entirely within this cone are unlikely to be struck (although it is still possible).



cone of protection

cone of silence A small zero-signal zone directly over a low-frequency radio-range beacon. The zone is the product of the combined directive properties of the beacon transmitting antenna and the antenna on an aircraft.

cone speaker A loudspeaker having a sound-producing cone (diaphragm) made of specially treated paper or other material, as opposed to a loudspeaker having a flat diaphragm.

confetti On a color TV screen, color spots caused by chrominance-amplifier noise.

confidence The probability that a predicted result will occur.

confidence factor Confidence, expressed either as a fraction (between 0 and 1) or as a percentage.

confidence interval The range over which a parameter can vary so that a given confidence factor is maintained.

confidence level See CONFIDENCE FACTOR.

confidence limitations The maximum and minimum points of a confidence interval. Outside the confidence-limitation points, the confidence factor drops below the required minimum.

configuration **1.** The characteristic arrangement of components in an electronic assembly, or of the equipment symbols in the corresponding circuit diagram. **2.** Computer system.

configuration state In a computer system, an expression of the availability status of a device for a given application. A *configured-in* device is available; a *configured-out* device is available, but is restricted to certain users; a *configured-off* device is unavailable.

configuration table Within a computer's operating system, a table that provides the configuration state for various system units.

configured-in See CONFIGURATION STATE.

configured-off See CONFIGURATION STATE.

configured-out See CONFIGURATION STATE.

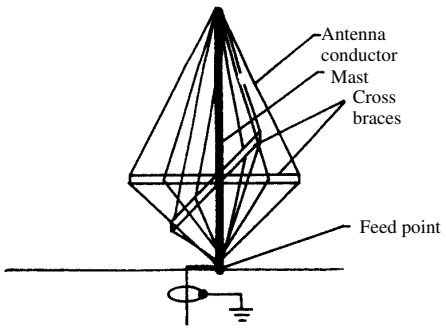
conformance The degree to which a quantity or variable corresponds to a standard or to expectations.

conformance error The extent (usually expressed as a percentage) to which conformance is lacking.

conical antenna See CONE ANTENNA.

conical horn A horn (antenna, loudspeaker, or sound pickup) having the general shape of a cone: the cross-sectional area varies directly as the square of the horn's axial length.

conical monopole antenna An unbalanced broadband antenna that derives its name from its shape. It is usually constructed from wire and must be operated against a good radio-frequency (RF) ground.



conical monopole antenna

conical scanning In radar transmission, a method of scanning in which the beam describes a cone, at the apex of which is the antenna.

conic sections The geometric plane figures that result from the intersection of a cone with a

pie winding A method of coil winding in which two or more separate, multilayer coils are connected in series and placed along a common axis. It is sometimes used in radio-frequency chokes to minimize capacitance among the windings.

piezo- A prefix meaning *pressure* (see PRESSURE, **2**).

piezodielectric A substance that, when stretched or compressed, exhibits a change in dielectric constant.

piezoelectric accelerometer An accelerometer using a piezoelectric crystal, whose voltage output is proportional to acceleration.

piezoelectric ceramic A ceramic material that delivers a voltage when deformed, or that changes in shape when a voltage is applied to it.

piezoelectric crystal A crystal (such as quartz, Rochelle salt, tourmaline, or various synthetics) that delivers a voltage when mechanical force is applied between its faces, or that changes its shape when a voltage is applied between its faces.

piezoelectric earphone See CRYSTAL EARPHONE.

piezoelectric filter See CRYSTAL FILTER and CRYSTAL RESONATOR.

piezoelectricity Electricity produced by deforming (squeezing, stretching, bending, or twisting) certain crystals, such as those of quartz, Rochelle salt, or tourmaline.

piezoelectric loudspeaker See CRYSTAL LOUDSPEAKER.

piezoelectric microphone See CERAMIC MICROPHONE and CRYSTAL MICROPHONE.

piezoelectric oscillator See CRYSTAL OSCILLATOR.

piezoelectric pickup See CRYSTAL PICKUP.

piezoelectric resonator See CRYSTAL FILTER and CRYSTAL RESONATOR.

piezoelectric sensor See CRYSTAL TRANSDUCER.

piezoelectric transducer See CRYSTAL TRANSDUCER.

piezoid A complete piezoelectric crystal device.

piezoresistance In certain substances, the tendency of the resistance to change with stretching or compression.

piezo tweeter A tweeter of the piezoelectric type (see CRYSTAL LOUDSPEAKER).

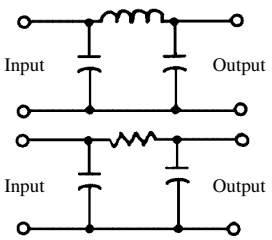
pi filter An unbalanced filter section having one series arm and two shunt arms; its schematic representation has the general shape of the uppercase Greek letter pi.

piggyback component See OUTBOARD COMPONENT.

piggyback control See CASCADE CONTROL.

piggyback tuner A separate ultra-high-frequency (UHF) television tuner operated in conjunction with the very-high-frequency (VHF) tuner of the receiver.

pigtail **1.** A usually long and sometimes flexible lead, such as the pigtail of a fixed capacitor. **2.** Descriptive of a device containing a long lead or leads, and usually mounted by such leads.



pi filters

pile **1.** See VOLTAIC PILE. **2.** See NUCLEAR REACTOR. **3.** A battery of electrochemical cells. **4.** Any packed group of particles or granules.

pillow speaker A small, flat loudspeaker intended for use under a pillow.

PILOT Acronym for *programmed inquiry learning or teaching.* A straightforward high-level computer programming language, used in computer-assisted instruction (CAI).

pilot lamp See PILOT LIGHT.

pilot light A usually small, incandescent or neon lamp. When glowing, it serves as a signal that a piece of equipment is in operation.

pilot model A preliminary model of a circuit or device constructed primarily to test the efficacy of a production process. The pilot model usually follows the PROTOTYPE.

pilot production The often small-scale production of a device in a special assembly line apart from the main line in a factory.

pilot regulator A variable-gain circuit that maintains a constant output—even if the input amplitude changes.

PIM Abbreviation of PULSE-INTERVAL MODULATION.

pi mode In a vane-anode magnetron, the mode of operation in which adjacent vanes have radio-frequency voltages of opposite polarity.

pin **1.** A semiconductor junction consisting of a layer of instrinsic semiconductor material situated between n and p layers. **2.** A slender, straight, stiff prong used as a terminal or locking device (see, for example, BASE PIN and BAYONET BASE).

pinchoff In a junction field-effect transistor, the condition in which the gate voltage causes the two depletion regions to meet and close the channel to obstruct drain-current flow.

pinchoff voltage In a junction field-effect transistor, the lowest value of gate voltage that will produce pinchoff.

pinch roller In a tape recorder, a rubber-tired, rotating cylinder that helps to pull the tape past the recording and/or playback heads.