MODERN DICTIONARY of ELECTRONICS

SEVENTH EDITION

REVISED AND UPDATED

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playback head — 1. The magnetic assembly on a tape recorder that responds to the recorded pattern on the tape and develops a signal representing that pattern to feed to the preamplifier. In some tape machines, the playback and recording head are the same device; in others they are separate units. 2. Magnetic head used to pick up a signal from a tape.

playback loss — *See* translation loss.

player — A software application that permits viewing or playback of content such as audio, video, or movie files in primarily a linear fashion, although random indexing or control of playback may be permitted. As opposed to a browser. *See also* viewer.

playing weight — 1. Downward force of a pickup on a record. Sometimes called stylus pressure. 2. The downward force required on the pickup stylus to keep it in the groove and to counter the mechanical reactions of replay.

PLCC — Abbreviation for plastic leaded chip carrier. A leaded quad package — a replacement for the plastic DIP (dual in-line package) in surface-mount applications. External connections consist of leads around all four sides of the package.

PLD — Abbreviation for programmable logic device. A semiconductor device containing transistors that can be interconnected electronically by users to perform various logic functions. *See also* FPLA.

plethysmograph — An instrument for detecting variations of blood volume in the tissues during the cardiac cycle. *See also* electrical-impedance cephalography; finger plethysmograph.

pliers — 1. A small pair of pincers. 2. An instrument having two short handles extended into pivoted jaws suitable for grasping or cutting.

pliodynatron — A four-element vacuum tube with an additional grid, which is maintained at a higher voltage than the plate to obtain negative-resistance characteristics.

pliotron — An industrial-electronic term for a hot-cathode vacuum tube having one or more grids.

PLL or pll — Abbreviation for phase-locked loop. 1. A circuit containing a voltage-controlled oscillator whose output phase or frequency can be steered to keep it in sync with a reference source. A PLL circuit is generally used to lock onto and up-convert the frequency of a stable source. 2. An electronic circuit that consists of a phase detector, low-pass filter, and voltage-controlled oscillator. A PLL can be used as an FSK demodulator or to synchronize a terminal's internal clock to the received bit stream.

plot — *See* print.

plotter — 1. A device that produces an inscribed visual display of the variation of a dependent variable as a function of one or more other variables. 2. A device for presenting computer output in graphical form instead of a printed listing. 3. A visual display or board in which a dependent variable is graphed by an automatically controlled pen or pencil as a function of one or more variables. 4. A device used to make a permanent copy of a display image. 5. An output device that provides data in pictorial form. A pen controlled by two motors moves in the x and y directions, drawing a picture that is defined in terms of x and y coordinates.

plotting — The practice of mechanically converting x, y positional information into a visual pattern, such as artwork.

plotting board — A device that plots one or more variables against one or more other variables.

ploy effect — In surface-channel charge-coupled devices (CCDs), the tendency for charges to be captured by surface effects, thus resulting in a loss of signal. By continuously introducing a charge into all CCD channels through a diffusion at the beginning of the channel, the areas that trap charges are filled by the induced charges rather than the signal charges, thus increasing transfer efficiency.

· PLT — Abbreviation for power-line transient — one kind of conducted noise, generally caused by switching inductive loads measured on the power line.

plug — 1. The part of the two mating halves of a connector that is free to move when not fastened to the mating half. The plug is usually thought of as the male portion of the connector. This is not always the case. The plug may have female contacts if it is the free-to-move member. *See also* connector. 2. Also called plugging and plug reverse. A method of braking a motor by applying partial or full rated voltage in reverse in an attempt to quickly bring the motor to zero speed.

plugboard — In a computer, a removable board having many electric terminals into which connecting cords may be plugged in patterns varying for different programs. To change the program, one wired plugboard is replaced by another.

plugboard computer — A computer that has a punch-card input and output, and to which program instructions are delivered by means of interconnecting patch cords on a removable plugboard.

plug braking — A method of braking an electric vehicle in which the kinetic energy of the vehicle is dissipated as heat, either in a traction motor or a special resistor.

plug-compatible — A term used to indicate when devices may be effectively interchanged without any modifications.

plug connector — An electrical fitting containing male, female, or male and female contacts and constructed so that it can be affixed to the end of a cable, conduit, coaxial line, cord, or wire for convenience in joining with another electrical connector or connectors. It is not designed for mounting on a bulkhead, chassis, or panel.

plug fuse — A fuse of small rating (5 to 30 amperes) with a screw thread like that on an electric lamp base; used in a standard screw receptacle.

pluggable unit — A chassis that can be removed from or inserted into the rest of the equipment by merely plugging in or pulling out a plug.

plugging — *See* plug, 2.

plug-in — 1. Any device to which connections can be completed through pins, plugs, jacks, sockets, receptacles, or other ready connectors. 2. A small software program that plugs into a larger application to provide added functionality.

plug-in coil — A coil that can be easily interchanged and used for varying the tuning range of a receiver or transmitter. It is wound around a form often resembling an elongated tube base, with the coil leads connected to pins on the base.

plug-in device — A component or group of components and their circuitry that can be easily installed or removed from the equipment. Electrical connections are made by mating contacts.

plug-in unit — A standard subassembly of components that can be readily plugged into or pulled out of a circuit as a unit.

plug reverse — *See* plug, 2.

Plumbicon — A vidicon with a lead-oxide target; its major advantage is its lack of image retention. It is a tube with the simplicity of a vidicon, and the sensitivity and lag of a glass target image orthicon. The tube is used for live black-and-white and color broadcasting. Trademark of N. V. Philips of Holland.

plumbing — Coaxial lines or waveguides and accessory equipment for transmission of radio-frequency energy.