

# WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY

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Lexicographer



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work properly only with a specific platform. Also called **platform neutral**, **cross-platform**, **multiplatform**, or **architecture-independent**.

**platform neutral** Same as **platform-independent**.

**platform-neutral architecture** Hardware or software which can work with more than one type of architecture. This provides greater flexibility, but may sacrifice performance. Also called **neutral architecture**.

**plating** 1. The process of depositing a metal onto another surface, usually a different metal, via electrolysis. Such a deposit may be thin or thick, and may be used, for instance, to provide coatings which are protective, decorative, or which have any given electrical properties. Also called **electroplating**. 2. The process of depositing or applying a thin, or very thin, layer or coat upon a metal.

**platinotron** A magnetron designed for wideband amplification of microwave oscillations.

**platinum** A dense and lustrous silvery-white metallic chemical element whose atomic number is 78. It is chemically inactive, extremely corrosion resistant, malleable, ductile, and can absorb large amounts of hydrogen. It has around 35 known isotopes, of which 5 are stable. Its applications in electronics include its use in contacts, electrodes, thermocouples, and in electroplating. Its chemical symbol is Pt.

**platinum-iridium alloy** An alloy containing platinum and from 1% to 30% iridium. Used in electrical contacts, fuse wire, thermocouples, and where very high corrosion resistance is essential.

**platinum resistance thermometer** A resistance thermometer which utilizes a platinum wire. Such a thermometer is highly stable, and may be able to provide very accurate readings throughout a temperature range spanning from below -200 °C, to over 1000 °C. Its abbreviation is PRT.

**platinum-rhodium alloy** An alloy containing platinum and from 2% to 40% rhodium. Used in thermocouples, and in high temperature applications.

**platter** 1. One of the rigid disks comprising a hard drive. Such platters rotate at very high speeds, and are coated, usually on both sides, with a material which enables information to be encoded by altering the magnetic polarity of minute portions of the surface of each side of said platters, using read/write heads. 2. The rotating disk upon which a phonographic record rests when playing. 3. A surface upon which one or more disks or discs rest when playing or awaiting to be played. For example, a rotating tray upon which the discs rest in a multiple CD or DVD player.

**play head** Same as **playback head**.

**playback** The reproduction of a sound and/or video recording, such as that of a magnetic tape or optical disc.

**playback head** A transducer which converts magnetic signals recorded or stored on magnetic recording media, such as tapes or disks, into output electrical signals. When used in the context of tape which has audio and/or video, the signals are usually said to be reproduced, while in the context of data, the signals are usually said to be read. Also called **play head**, **magnetic read head**, **magnetic reading head**, **read head**, **reading head**, or **reproduce head**.

**player** 1. A device which plays back, reproduces, or reads that which has been stored in a recording medium such as a magnetic tape or optical disk. Examples include DVD players, CD players, digital audio players, cassette players, and VHS players. 2. A device or application which enables a user to access content available on recorded media, or through a network such as the Internet. An example is a media player.

**PlayStation** A popular gaming system.

**PLC** 1. Abbreviation of **programmable logic controller**. 2. Abbreviation of **power-line communication**.

**PLCC** 1. Abbreviation of **plastic-leaded chip carrier**. 2. Abbreviation of **plastic-leadsless chip carrier**.

**PLD** Abbreviation of **programmable logic device**.

**plenum** 1. An enclosure whose gas pressure is higher than the surrounding environment. 2. In a structure, such as an office building, a space between real ceilings and drop ceilings, or between walls or floors, which can be used to run wires and cables.

**plenum cable** A cable whose flammability and smoke characteristics make it safe for running through a plenum, without the need for a conduit.

**PLF** Abbreviation of **plant load factor**.

**PLL** Abbreviation of **phase-locked loop**, or **phase-lock loop**.

**PLM** Abbreviation of **pulse-length modulation**.

**PLO** Abbreviation of **phase-locked oscillator**.

**plot** 1. A curve or other graphical representation. Also, to draw, trace, print, or display such a curve or graphical representation. 2. To produce an image, such as a curve or other graphical representation, by drawing a series of lines.

**plotter** A printer which draws images, such as a curves or other graphical representations, by drawing a series of lines usually using ink pens. Used, for instance, in CAD and architecture. Also called **graphics plotter**.

**plug** 1. An electric connector with one or more pins or prongs, which is inserted into a jack with matching recessed openings. When said plug is inserted, the circuit is closed. This allows for an easy and rapid connection which is secure. Widely used in communications, computer, and entertainment devices, equipment, and systems. Also called **plug connector**. 2. A plug (1) used in the context of power line terminations. Such a plug is inserted into a power outlet, socket, or receptacle, so as to access electric power. Also called **power plug**.

**plug adapter** 1. A fitting utilized to convert a plug in one format to that of another. 2. A fitting utilized to insert a plug into a jack, outlet, socket, or receptacle which would otherwise not match.

**plug-and-play** Its abbreviation is PnP. 1. The ability of a computer system to automatically establish the proper configuration for a peripheral or expansion card which is connected to it. A PnP device, once installed, should be able to be used immediately, without any manual configuration. 2. A peripheral or expansion card, such as a monitor or sound card, which supports **plug-and-play** (1).

**plug-board** Same as **plugboard**.

**plug connector** Same as **plug** (1).

**plug fuse** A fuse which screws into an Edison base.

**plug-in** Also spelled **plugin**. 1. A program which is used in association with a larger program, to provide the latter with additional functionality. A browser plug-in is an example. Also called **plug-in software**, **plug-in program**, **plug-in application**, or **plug-in component** (2). 2. A component, circuit, circuit board, device, or functional unit which has the proper terminals to be plugged-in to another assembly or unit. For instance, a capacitor, transistor, fuse, meter, or module with pins, prongs, clips, or other terminations which match for easy insertion or removal.

**plug in** To insert a plug into a matching jack, outlet, socket, or receptacle. Also, to insert a plug into an adapter. Also, to insert a matching component, circuit, circuit board, device, or functional unit into another assembly. For instance, to plug an adapter card into a computer.

**plug-in application** Same as **plug-in** (1). Also spelled **plugin application**.

**plug-in capacitor** A capacitor which has the proper terminals to allow for easy insertion and removal from a matching socket. Also spelled **plugin capacitor**.

**plug-in circuit** A circuit, such as a circuit board, which has the proper terminals to be plugged-in to another assembly or unit. Also spelled **plugin circuit**.

**plug-in coil** A coil which has the proper terminals to allow for easy insertion and removal from a matching socket. Also spelled **plugin coil**.

**plug-in component** Also spelled **plugin component**. 1. A component, such as a capacitor or resistor, which has the proper terminals to be plugged-in to another assembly or unit. 2. Same as **plug-in (1)**.

**plug-in device** A device, such as a meter, which has the proper terminals to be plugged-in to another assembly or unit. Also spelled **plugin device**.

**plug-in fuse** A fuse, such as a cartridge fuse, which has the proper terminals to allow for easy insertion and removal from a matching socket. Also spelled **plugin fuse**.

**plug-in meter** A meter, such as a voltmeter, which has the proper terminals to be easily plugged-into or removed from a circuit. Also spelled **plugin meter**.

**plug-in module** A module, such as a circuit board, which has the proper terminals to be plugged-in to another assembly or unit. Also spelled **plugin module**.

**plug-in program** Same as **plug-in (1)**. Also spelled **plugin program**.

**plug-in resistor** A resistor which has the proper terminals to allow for easy insertion and removal from a matching socket. Also spelled **plugin resistor**.

**plug-in software** Same as **plug-in (1)**. Also spelled **plugin software**.

**plug-in unit** A unit, such as an amplifier, which has the proper terminals to be plugged-in to another assembly or unit. Also spelled **plugin unit**.

**plug & play** Same as **plug-and-play**.

**plugboard** A board upon which the terminals of components or systems are readily accessible for temporary connection, especially by inserting or removing plugs from jacks or sockets. Also spelled **plug-board**.

**pluggable** That which has a **plug**, and which can therefore be plugged in.

**plugin** Same as **plug-in**.

**plugin application** Same as **plug-in (1)**. Also spelled **plug-in application**.

**plugin capacitor** Same as **plug-in capacitor**.

**plugin circuit** Same as **plug-in circuit**.

**plugin coil** Same as **plug-in coil**.

**plugin component** Same as **plug-in component**.

**plugin device** Same as **plug-in device**.

**plugin fuse** Same as **plug-in fuse**.

**plugin meter** Same as **plug-in meter**.

**plugin module** Same as **plug-in module**.

**plugin program** Same as **plug-in (1)**. Also spelled **plug-in program**.

**plugin resistor** Same as **plug-in resistor**.

**plugin software** Same as **plug-in (1)**. Also spelled **plug-in software**.

**plugin unit** Same as **plug-in unit**.

**plumbicon** A TV camera tube similar to a vidicon, but with greater sensitivity.

**plumbing** 1. The sections and devices, such as elbows and joints, utilized to channel microwave energy. Also called **microwave plumbing**. 2. The sections and devices, such as elbows and tees, utilized to channel energy in a waveguide. Also, the installation of such a system. Also called **waveguide plumbing**.

**plunger** Same as **piston (1)**.

**plutonium** A silvery-white radioactive transuranic metallic chemical element whose atomic number is 94. It is chemically active, has around 20 identified isotopes, all unstable, and is used in nuclear power reactors, and for power generation in remote areas such as outer space. Its chemical symbol is **Pu**.

**PLZT** Abbreviation of lead lanthanum zirconate titanate. A ferroelectric ceramic which exhibits the piezoelectric effect, and whose properties are similar to **PZT**. The first letter of its abbreviation is taken from **Pb**, the chemical symbol for lead.

**pm** Abbreviation of **picometer**.

**Pm** 1. Chemical symbol for **promethium**. 2. Abbreviation of **petameter**.

**PM** 1. Abbreviation of **phase modulation**. 2. Abbreviation of **pulse modulation**. 3. Abbreviation of **permanent magnet**.

**PM dynamic loudspeaker** Abbreviation of **permanent-magnet dynamic loudspeaker**.

**PM dynamic speaker** Abbreviation of **permanent-magnet dynamic speaker**.

**PM loudspeaker** Abbreviation of **permanent-magnet loudspeaker**.

**PM speaker** Abbreviation of **permanent-magnet speaker**.

**PMBX** Abbreviation of **private manual branch exchange**.

**PMC** Abbreviation of **PCI mezzanine card**.

**PMD** Abbreviation of **polarization mode dispersion**.

**PMG** Abbreviation of **permanent-magnet generator**.

**PMMA** Abbreviation of **polymethylmethacrylate**.

**pmol** Abbreviation of **picomole**, or **picomol**.

**PMOS** Abbreviation of **p-channel MOS**, which itself is an abbreviation of **p-channel metal-oxide semiconductor**. 1. A MOS technology in which a p-type channel is used, making mobile holes the charge carriers. Since holes move slower than electrons, such devices are slower than **NMOS**, in which electrons are the charge carriers. Also called **PMOS technology**. 2. A semiconductor device incorporating the technology described in **PMOS (1)**. Also called **PMOS device**.

**PMOS device** Same as **PMOS (2)**.

**PMOS technology** Same as **PMOS (1)**.

**PMOS transistor** A field-effect transistor utilizing **PMOS (1)**. Also called **PMOSFET**.

**PMOSFET** Same as **PMOS transistor**.

**PMP** Abbreviation of **Peak Music Power**.

**PMPO** Abbreviation of **Peak Music Power Output**.

**PMS** Abbreviation of **Pantone Matching System**.

**PMT** Abbreviation of **photomultiplier tube**.

**pN** Abbreviation of **piconewton**.

**PN** Same as **pn**.

**pn** Abbreviation of **positive-negative**. It refers to the region where a p-type semiconductor and an n-type semiconductor meet. In a p-type semiconductor, holes, which act as positively-charged particles, are the majority carrier, while in an n-type semiconductor electrons, which are negative particles, are the majority carrier. Also called **np**.

**pn diode** Same as **pn-junction diode**.

**pn junction** The relatively narrow region where a p-type semiconductor and an n-type semiconductor meet. A homo-junction is that between layers of the same semiconductor material, each layer having different properties, and a heterojunction is the boundary between layers of different semiconductor materials. Most diodes consist of a **pn junction**, and bipolar junction transistors have two **pn junctions**. Also called **np junction**.