

IEEE 100

THE

AUTHORITATIVE

DICTIONARY

OF IEEE STANDARDS TERMS

SEVENTH EDITION

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The Authoritative Dictionary of
IEEE Standards Terms

Seventh Edition

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(3) Any product whose sole purpose is to act as an obstruction to the path of the animal. A barrier may have electrical insulating properties, but by design and application, its use is limited to blocking an animal's passage or an animal's contact with energized conductors or equipment.

(SUB/PE) 1264-1993

(4) An obstruction composed of suitable construction and materials or a time delay mechanism that imposes a delay for an intended purpose.

(PE/NP) 692-1997

barrier grid (charge-storage tubes) A grid, close to or in contact with a storage surface, which establishes an equilibrium voltage for secondary-emission charging and serves to minimize redistribution. *See also:* charge-storage tube.

(ED) 158-1962w, [45]

barrier layer (fiber optics) In the fabrication of an optical fiber, a layer that can be used to create a boundary against OH⁻ ion diffusion into the core. *See also:* core.

(Std100) 812-1984w

barrier transaction (1) Transaction that is guaranteed to become visible to other observers after all transactions created before it have become visible.

(C/BA) 896.3-1993w

(2) A transaction that ensures that all previously generated write transactions have the global appearance of having been written to memory. This is used before signaling another non-coherent unit, or one in a different coherence domain, that the data is available. In some systems, this is an explicit bus transaction that will be treated specially by the bus bridges (e.g., that may not return a response until all write buffers for the unit are flushed). For buses that delay the write-response until write bus transactions have been adequately completed, a separate barrier transaction is not needed since the effect of a barrier can be achieved by waiting for all outstanding write-responses. *Synonym:* write barrier.

(C/MM) 1212.1-1993

barrier wiring techniques (coupling in control systems) Those wiring techniques which obstruct electric or magnetic fields, excluding or partially excluding the fields from a given circuit. Barrier techniques are often effective against electromagnetic radiation also. In general, these techniques change the coupling coefficients between wires connected to a noise source and the signal circuit. *Example:* placement of signal lines within steel conduit to isolate them from an existing magnetic field. *See also:* suppressive wiring techniques; compensatory wiring techniques.

(IA/ICTL) 518-1982r

barring hole (rotating machinery) A hole in the rotor to permit insertion of a pry bar for the purpose of turning the rotor slowly or through a limited angle. *See also:* rotor.

(PE) [9]

bar, rotor *See:* rotor bar.

bar-type current transformer One that has a fixed and straight single primary winding turn passing through the magnetic circuit. The primary winding and secondary winding(s) are insulated from each other and from the core(s) and are assembled as an integral structure.

(PE/TR) C57.13-1993, [57]

base (1) (number system) An integer whose successive powers are multiplied by coefficients in a positional notation system. *See also:* radix; positional notation.

(C) 162-1963w

(2) (rotating machinery) A structure, normally mounted on the foundation, that supports a machine or a set of machines. In single-phase machines rated up through several horsepower, the base is normally a part of the machine and supports it through a resilient or rigid mounting to the end shields.

(PE) [9]

(3) (electron tube or valve) The part attached to the envelope, carrying the pins or contacts used to connect the electrodes to the external circuit and that plugs into the holder. *See also:* electron tube.

(ED) [45], [84]

(4) (electroplating) (basis or base metals) The object upon which the metal is electroplated. *See also:* electroplating.

(PE/EEC) [119]

(5) (transistor) A region that lies between an emitter and a collector of a transistor and into which minority carriers are injected. *See also:* transistor.

(ED/IA) 216-1960w, [12]

(6) (high-voltage fuse) The supporting member to which the insulator unit or units are attached.

(SWG/PE) C37.40-1993, C37.100-1992

(7) (pulse terminology) The two portions of a pulse waveform which represents the first nominal state from which a pulse departs and to which it ultimately returns.

(IM/WM&A) 194-1977w

base active power (synchronous generators and motors) The total (generator) output or (motor) input power at base voltage and base current with a power factor of unity.

base address (1) (computers) An address used as a reference point to which a relative address is added to determine the address of the storage location to be accessed. *See also:* indexed address; relative address; self-relative address.

(C) 610.12-1990, 610.10-1994w

(2) A given address from which an absolute address is derived by combination with a relative address. *Synonyms:* reference address; presumptive address; constant address.

(C) [20], 610.10-1994w, [85]

base address register A register used in an operand field of a processor instruction with a specified offset, the sum of which points to a data value within a data structure to be used by the instruction. *See also:* base register.

(C) 610.10-1994w

base ambient temperature (power distribution, underground cables) (cable or duct) The no-load temperature in a group with no load on any cable or duct in the group.

(PE) [4]

base apparent power (1) (ac rotating machinery) (basic per-unit quantities for ac rotating machines) A reference value expressing an electrical power rating of the machine. *Notes:*

1. Base apparent power may be either input or output power, and the numerical value may be either real power—watts (W)—or total apparent electrical power—voltamperes (VA)—depending upon machine type. Base apparent power is usually expressed in voltamperes, but any consistent set of units may be used. For synchronous generators, induction generators, and synchronous motors, base apparent power is the total apparent electrical at rated voltage and rated current. In induction motors (preferred method), base apparent power is numerically equal to the rated power output. For induction motors (alternate method), base apparent power is the total apparent electrical power at rated voltage and rated current. 2. When the alternate method is used it should be identified as "input voltampere based."

(EM/PE) 86-1987w

(2) (synchronous generators and motors) The total rated apparent power at rated voltage and rated current. *Note:* Base apparent power is usually expressed in volt-amperes, but any consistent set of units may be used.

86-1961

base assertion An assertion that is required to be tested for required features and for implemented conditional features.

(C/PA) 1326.2-1993w, 1328-1993w, 13210-1994,

2003.1-1992, 1328.2-1993w

baseband (carrier or subcarrier wire or radio transmission system) The band of frequencies occupied by the signal before it modulates the carrier (or subcarrier) frequency to form the transmitted line or radio signal. *Note:* The signal in the baseband is usually distinguished from the line or radio signal by ranging over distinctly lower frequencies, which at the lower end relatively approach or may include direct current (zero frequency). In the case of a facsimile signal before modulation on a subcarrier, the baseband includes direct current. *See also:* facsimile transmission.

(BT/COM/PE/AV) [34], 168-1956w, 599-1985w

baseband coaxial system (1) A baseband system employing coaxial cables as a data transmission medium. At any point on the medium only one information signal at a time can be present without disruption. *Contrast:* baseband twisted-pair system.

(C) 610.7-1995

(2) A system whereby information is directly encoded and impressed upon the transmission medium. At any point on the medium only one information signal at a time can be present without disruption.

(C/LM) 802.3-1998

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