IEEE 100
The Authoritative Dictionary of IEEE Standards Terms

Seventh Edition

IEEE
Published by
Standards Information Network
IEEE Press

Qualcomm Ex. 1045 - 1/4

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3 Park Avenue, New York, NY, 10016-5997, USA

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To order IEEE Press publications, call 1-800-678-IEEE.

Print: ISBN 0-7381-2601-2 *SP1122*

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CHILL A high-order language, standardized by CCITT (Consultative Committee on International Telephone & Telegraph, Geneva), used for communication applications. (C) 610.13-1993w

Chinese binary *See:* column binary.

Chinese finger *See:* woven wire grip.

chip (1) (mechanical recording) The material removed from the recording medium by the recording stylus while cutting the groove. (SP) [32]

(2) (nonlinear, active, and nonreciprocal waveguide components) (semiconductor) A small unpackaged functional element made by subdividing a wafer of semiconductor material. Sometimes referred to as a "die." (MTT) 457-1982w

(3) A small piece of silicon or other semiconductive material on which circuits can be placed. (C) 610.10-1994w

(4) A small unpackaged functional element made by subdividing a wafer of semiconductor material. Sometimes referred to as a die. Also used as a modifier to indicate an operation that applies to the entire chip as in chip enable or chip clear. *Synonym:* integrated circuit. (ED) 1005-1998

chip clear (A) Operation that causes the writing of all memory elements to a common "1" state. **(B)** Terminal to which the clear signal is applied (preferred usage). (ED) 1005-1998

chip density The number of transistors implemented on a single integrated circuit. (C) 610.10-1994w

chip enable (semiconductor memory) The inputs that when true permit input, internal transfer, manipulation, refreshing, and output of data, and when false cause the memory to be in a reduced power standby mode. *Note:* Chip enable is a clock or strobe that significantly affects the power dissipation of the memory. Chip select is a logical function that gates the inputs and outputs. For example, chip enable may be the cycle control of a dynamic memory or a power reduction input on a static memory. (TT/C) 662-1980s

chip erase *See:* bulk erase.

chip-on-board testing A test of a component after it has been assembled onto a printed circuit board or other substrate; for example, using the facilities defined by IEEE Std 1149.1-1990. (TT/C) 1149.1-1990

chip select (semiconductor memory) The inputs that when false prohibit writing into the memory and disable the output of the memory. *Note:* Chip enable is a clock or strobe that significantly affects the power dissipation of the memory. Chip select is a logical function that gates the inputs and outputs. For example, chip enable may be the cycle control of a dynamic memory or a power reduction input on a static memory. (TT/C) 662-1980s

chirp A form of pulse compression that uses frequency modulation (usually linear) during the pulse. (AES) 686-1997

chirp filter A filter whose group delay is a nonconstant function of the instantaneous frequency of the input signal. (UFFC) 1037-1992w

chirping (fiber optics) A rapid change (as opposed to long-term drift) of the emission wavelength of an optical source. Chirping is often observed in pulsed operation of a source. (Std100) 812-1984w

choice (1) (telephone switching systems) The position of an outlet in a group with respect to the order of selection. (COM) 312-1977w

(2) The language-independent syntax for a family of datatypes constructed from a sequence of base datatypes, each associated with a name. A value of choice datatype contains, for exactly one name, a value of the corresponding datatype. (C/PA) 1351-1994w

(3) A datatype constructed from a sequence of base datatypes, each associated with a name. A choice value contains, for exactly one name, a value of the corresponding datatype. (C/PA) 1224.1-1993w

choice device A logical input device used to make a selection from a set of predefined menu options in a graphics system. A typical physical device is a function keyboard or a set of function keys. *Synonym:* button device. (C) 610.6-1991w, 610.10-1994w

choke (waveguide) A device for preventing energy within a waveguide in a given frequency range from taking an undesired path. *See also:* waveguide. (AP/ANT) [35]

choke coil An inductor used in a special application to impede the current in a circuit over a specified frequency range while allowing relatively free passage of the current at lower frequencies. (CHM) [51]

choke flange (1) (microwave technique) A flange in whose surface is cut a groove so dimensioned that the flange may form part of a choke joint. *See also:* waveguide. (AP/ANT) [35]

(2) (waveguide components) A flange designed with auxiliary transmission-line elements to form a choke joint when used with a cover flange. (MTT) 147-1979w

choke joint (waveguide components) A connection designed for essentially complete transfer of power between two waveguides without metallic contact between the inner walls of the waveguides. It typically consists of one cover flange and one choke flange. (MTT) 147-1979w

choke piston (waveguide) A piston in which there is no metallic contact with the walls of the waveguide at the edges of the reflecting surface; the short-circuit to high-frequency currents is achieved by a choke system. *Note:* This definition covers a number of configurations: dumbbell; Z-slot; inverted bucket; etc. *Synonyms:* choke plunger; noncontact plunger. *See also:* waveguide. (AP/ANT) [35]

choke plunger *See:* choke piston.

choker *See:* traveler sling.

chop A sudden cessation of the flow of arc current during circuit interruption. (PE/IC) 1143-1994r

chopped display (oscilloscopes) A time-sharing method of displaying output signals of two or more channels with a single cathode-ray-tube gun, at a rate that is higher than and not referenced to the sweep rate. *See also:* oscillograph. (IM/HFIM) [40]

chopped frequency *See:* chopping rate.

chopped impulses (high voltage testing) Generally, chopping of an impulse is characterized by an initial discontinuity, decreasing the voltage, which then falls to zero with or without oscillations. See figures 1 and 3 to definition of "virtual origin O_1." *Note:* With some test objects or test arrangements, there may be a flattening of the crest or a rounding off of the voltage before the final voltage collapse. Similar effects may also be observed, due to imperfections of the measuring system. Exact determination of the parameters related to the chopping then requires special consideration. (PE/PSIM) 4-1978s

chopped impulse voltage A transient voltage derived from a full impulse voltage that is interrupted by the disruptive discharge of an external gap or the external portion of the test specimen causing a sudden collapse in the voltage, practically to zero value. *Note:* The collapse can occur on the front, at the peak, or on the tail. *See also:* test voltage.

chopped impulse wave (surge arresters) An impulse wave that has been caused to collapse suddenly by a flashover. (PE) [8], [84]

chopped lightning impulse A prospective full lightning impulse during which any type of discharge causes a rapid collapse of the voltage. (PE/PSIM) 4-1995

chopped wave A voltage impulse that is terminated intentionally by sparkover of a gap. (PE/SPD/T&D) 32-1972r, [10]

chopped-wave lightning impulse test (power and distribution transformers) A voltage impulse that is terminated intentionally by sparkover of a gap, which occurs subsequent to the maximum crest of the impulse wave voltage, with a specified minimum crest voltage, and a specified minimum time to flashover. (PE/TR) C57.12.80-1978r

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microcode assembler A computer program that translates microprograms from symbolic form to binary form. (C) 610.12-1990

microcomputer (micro) A computer that contains at least one microprocessor as its main computing element. *Note:* The distinction between a microcomputer, minicomputer, and mainframe is not yet standardized, however, in 1991 a typical mainframe is IBM's 3090, a typical minicomputer is Digital's VAX, and a typical microcomputer is IBM's PS/2. (C) 610.10-1994w

microcopy A copy of an image or document so reduced in size from its original that it cannot be read by the unaided human eye. For example, microform, microfiche, microfilm, microimage. (C) 610.2-1987

microcycle *See:* machine cycle.

microelectronic device (electric and electronics parts and equipment) An item of inseparable parts and hybrid circuits, usually produced by integrated circuit techniques. Typical examples are microcircuit, integrated circuit package, micromodule. (GSD) 200-1975w

microfacsimile Transmission and reception of microimages via facsimile communication. (C) 610.2-1987

microfiche A sheet of microfilm capable of containing microimages in a grid pattern. The sheet usually contains a title that can be read without magnification. *Synonym:* fiche. (C) 610.2-1987

microfilm (A) A high resolution film for recording microimages. **(B)** To record microimages on film. *See also:* computer output microfilm. (C) 610.2-1987, 610.10-1994

microfilmer *See:* computer output microfilmer.

microfloppy disk A floppy disk that is 3.5 inches wide. *Contrast:* minifloppy disk. (C) 610.10-1994w

microfont* *See:* optical character recognition-B.

* Deprecated.

microform A medium that contains micro-images. For example, microfiche, microfilm. (C) 610.2-1987

micrographics That branch of science and technology concerned with methods and techniques for converting information to or from microform. *Synonym:* microphotographics. *See also:* office automation. (C) 610.2-1987

microimage An image that is too small to be read by the human eye without magnification. (C/C) 610.2-1987, 610.10-1994w

microinstruction In microprogramming, an instruction that specifies one or more of the basic operations needed to carry out a machine language instruction. Types include diagonal microinstruction, horizontal microinstruction, and vertical microinstruction. *See also:* nanoinstruction; microcode; microprogram. (C) 610.10-1994w, 610.12-1990

micrometer (laser maser) A unit of length equal to 10^{-6} m. In common practice a micrometer is a micron. (LEO) 586-1980w

micron (metric system) The millionth part of a meter. *Note:* According to the set of submultiple prefixes now established in the International System of Units, the preferred term would be micrometer. However, use of the same word to denote a small length, and also to denote an instrument for measuring a small length, could occasionally invite confusion. Therefore it seems unwise to deprecate, at this time, the continued use of the word micron. (Std100) [123]

microoperation In microprogramming, one of the basic operations needed to carry out a machine language instruction. *See also:* microinstruction. (C) 610.12-1990

microphone An electroacoustic transducer that responds to sound waves and delivers essentially equivalent electric waves. (T&D/PE/SP) 539-1990, [32]

microphonics (1) (general) The noise caused by mechanical shock or vibration of elements in a system. (SP) 151-1965w

(2) (interference terminology) Electrical interference caused by mechanical vibration of elements in a signal transmission system. *See also:* signal. (IE) [43]

(3) (electron tube) (microphonic effect) (microphonism) The undesired modulation of one or more of the electrode currents resulting from the mechanical vibration of one or more of the valve or tube elements. *See also:* electron tube. (ED) 161-1971w

microphonics, microphonic noise Electrical noise caused by mechanical or audio induced vibration of the detector assembly. (NPS) 325-1996

microphonism *See:* microphonics.

microphotographics *See:* micrographics.

microprint A positive microcopy photographically printed onto paper. (C) 610.2-1987

microprocessor An integrated circuit that contains the logic elements for manipulating data and for making decisions. *See also:* microcomputer; processor. (C) 610.10-1994w

microprogram (software) A sequence of instructions, called microinstructions, specifying the basic operations needed to carry out a machine language instruction. *See also:* control store; microcode. (C) 610.12-1990, 610.10-1994w

microprogrammable computer A microprogrammed computer in which microprograms can be created or altered by the user. *Contrast:* fixed-instruction computer. (C) 610.12-1990, 610.10-1994w

microprogrammed computer A computer in which machine language instructions are implemented by microprograms rather than by hard-wired logic. *Note:* A microprogrammed computer may or may not be a microcomputer; the concepts are not related despite the similarity of the terms. *See also:* microarchitecture; microprogrammable computer. (C) 610.12-1990, 610.10-1994w

microprogramming (1) The process of designing and implementing the control logic of a computer by identifying the basic operations needed to carry out each machine language instruction and representing these operations as sequences of instructions in a special memory called control store. This method is an alternative to hard wiring the control signals necessary to carry out each machine language instruction. Techniques include bit steering, compaction, residual control, single-level encoding, two-level encoding. *See also:* microinstruction; microcode; microprogram. (C) 610.12-1990

(2) The process of designing and implementing the control logic of a computer by identifying the basic operations needed to carry out each machine language instruction and then representing these operations in appropriate sequence in a special memory, called a control store. (C) 610.10-1994w

micropublishing The production and distribution of information via microform. The information may be original or may have been previously published in another form. (C) 610.2-1987

micropulsation Small magnitude fluctuations (usually much less than 10^{-6} of the Earth's magnetic field) with periods on the order of seconds or minutes ($f<1$ Hz). *Note:* Micropulsations usually result from current fluctuations in the E region. (AP/PROP) 211-1997

microradiometer (radio-micrometer) A thermosensitive detector of radiant power in which a thermopile is supported on and connected directly to the moving coil of a galvanometer. *Note:* This construction minimizes lead losses and stray electric pickup. *See also:* electric thermometer. (EEC/PE) [119]

micrositing Of, or related to, the characteristics of a particular wind-turbine site, as contrasted to those characteristics that prevail over the entire windfarm. (DESG) 1094-1991w

microspark (overhead-power-line corona and radio noise) A spark breakdown occurring in the miniature air gap formed by two conducting or insulating surfaces. (This is sometimes called a "gap discharge.") (T&D/PE) 539-1990

microstrip (1) A class of planar transmission lines consisting of one or more thin conducting strips of finite width parallel to a single extended conducting ground plane. In its common form, the strips are affixed to an insulating substrate attached

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