

EXHIBIT 8

IEEE Std 100-1996

The IEEE Standard Dictionary of Electrical and Electronics Terms

Sixth Edition

Standards Coordinating Committee 10, Terms and Definitions
Jane Radatz, Chair

This standard is one of a number of information technology dictionaries being developed by standards organizations accredited by the American National Standards Institute. This dictionary was developed under the sponsorship of voluntary standards organizations, using a consensus-based process.

ISBN 1-55937-833-6



9 781559 378336

licity in a transaction-initiation message and returned in a transaction-completion message. (C/MM) 1212.1-1993

transaction initiation (request) A request generated by the initiator to start an action by the responder. An initiation message usually transfers a command and sometimes data. For a disk read I/O transaction, for example, the initiation transfers the address and command. (C/MM) 1212.1-1993

transaction, I/O An instance of activity between Functions, usually composed of an Initiation and a Completion, although not necessarily bound one to one. A disk read and network data delivery are examples of I/O transactions. (C/MM) 1212.1-1993

transaction layer (1) The layer above the packet layer for use by applications. It is unspecified in this standard. See also: transaction. (BA/C) 1355-1993

(2) The layer, in a stack of three protocol layers defined for the Serial Bus, that defines a request-response protocol to perform bus operations of type read, write, and lock. (C/MM) 1394-1995

transaction matrix A matrix that identifies possible requests for database access and relates each request to information categories or elements in the database. (C) 610.12-1990

transaction record A record, representing one transaction, used to process data stored in a master file. See also: add transaction; change transaction; delete transaction; null transaction; update transaction. (C) 610.2-1987

transactor A magnetic device with an air-gapped core having an input winding which is energized with an alternating current and having an output winding which produces a voltage that is a function of the input current. Note: The term "transactor" is a contraction of the words "transformer" and "reactor." (PE/SWG) C37.100-1992, C37.110-1996

transmittance For harmonically varying quantities at a given frequency, the ratio of the complex amplitude of the current at one pair of terminals of a network to the complex amplitude of the voltage across a different pair of terminals. See also: interelectrode transmittance. (DM) 401

transmittance compression ratio (electron tube) The ratio of the magnitude of the small-signal forward transmittance of the tube to the magnitude of the forward transmittance at a given input signal level. (ED) 161-1971w

transmittance, forward (electron tube) The complex quotient of: the fundamental component of the short-circuit current induced in the second of any two gaps; and the fundamental component of the voltage across the first. (ED) 161-1971w

transceiver (1) (data transmission) The combination of radio transmitting and receiving equipment in a common housing, usually for portable or mobile use, and employing common circuit components for both transmitting and receiving. (PE) 599-1983w

(2) (navigation aids) A combination transmitter and receiver in a single housing, with some components being used by both parts. See also: transponder. (AE) 172-1983w

(3) (A) A device that both transmits and receives data. (B) A device that connects a host interface to a network. (C) A device that applies electronic signals to the cable and may sense collisions. Note: Definition (C) is contextually specific to IEEE Std 802.3. (C) 610.7-1993

transceiver cable A four-pair, shielded cable which interconnects a workstation to a transceiver or fan-out box. Note: This term is contextually specific to IEEE Std 802.3 See also: attachment unit interface cable; coaxial cable; drop cable; trunk cable. (C) 610.7-1993

transceiver chatter See: chatter.

transconductance The real part of the transmittance. Note: Transconductance is, as most commonly used, the interelectrode transconductance between the control grid and the plate. At low frequencies, transconductance is the slope of the control-grid-to-plate transfer characteristic. See also: electron-tube admittance; interelectrode transconductance. (ED) 161-1971w

transconductance meter (mutual-conductance meter) An instrument for indicating the transconductance of a grid-controlled electron tube. See also: instrument. (EBC/PE) [119]

transcribe (electronic computation) To convert data recorded in a given medium to the medium used by a digital computing machine or vice versa. (C) 162-1963w

transcriber (electronic computation) Equipment associated with a computing machine for the purpose of transferring input (or output) data from a record of information in a given language to the medium and the language used by a digital computing machine (or from a computing machine to a record of information). (Std100) 270-1966w

transducer (1) (electrical heating applications to melting furnaces and forehearth in the glass industry) A device that is actuated by power from one system and supplies power in any other form to a second system. (IA) 668-1987w

(2) (communication and power transmission) A device by means of which energy can flow from one or more transmission systems or media to one or more other transmission systems or media. Note: The energy transmitted by these systems or media may be of any form (for example, it may be electric, mechanical, or acoustical), and it may be of the same form or different forms in the various input and output systems or media. (AP/C/MIL) [2], [85], 145-1983e

(3) (metering) A device to receive energy from one system and supply energy (of either the same or of a difference kind) to another system, in such a manner that the desired characteristics of the energy input appear at the output. (ELM) C12.1-1988

(4) (thyristor) A device which under the influence of a change in energy level of one form or in one system, produces a specified change in energy level of another form or in another system. (IA) 428-1981w

(5) A device for converting energy from one form to another. (C) 610.10-1994

transducer, active A transducer whose output waves are dependent upon sources of power, apart from that supplied by any of the actuating waves, which power is controlled by one or more of the waves. Note: The definition of active transducer is a restriction of the more general active network: that is, one in which there is an impressed driving force. See also: transducer. (Std100) 270-1966w

transducer conversion loss The ratio of the SAW power generated in the substrate at the transducer output to the power available in the circuit at the transducer input in decibels. (UFFC) 1037-1992

transducer gain (1) The ratio of the power that the transducer delivers to the specified load under specified operating conditions to the available power of the specified source. Note: 1. If the input and/or output power consist of more than one component, such as multifrequency signals or noise, then the particular components used and their weighting must be specified. 2. This gain is usually expressed in decibels. See also: transducer. (Std100) 270-1966w

(2) (two-port linear transducer) At a specified frequency, the ratio of the actual signal power transferred from the output port of the transducer to its load, to the available signal power from the source driving the transducer. (ED) 161-1971w

transducer, ideal (for connecting a specified source to a specified load) A hypothetical passive transducer that transfers the maximum available power from the source to the load. Note: In linear transducers having only one input and one output, and for which the impedance concept applies, this is equivalent to a transducer that:

- a) dissipates no energy; and
- b) when connected to the specified source and load presents to each its conjugate impedance.

See also: transducer. (Std100) 270-1966w

transducer, line See: line transducer.

transducer loss The ratio of the available power of the specified source to the power that the transducer delivers to the spec-

ified load input ar. nent, su- ular con 2. This ducer.

transduce other th: cannot t- passive network See also

transfer (C lows a c erator to

(2) (A) formatio putation transfer (3) (elec age, or t electrost ric confi

(4) (dat place an

(5) (soft- sums it t- without

(6) (STE the curre dressed s (7) The MTM-Bi nected by

transfer ac mittance is a curre (2) (from network) divided b minimal w minals h 3-terminals

$$Y_{12} = \frac{I}{V}$$

transfer alk reference tial align- mating, si or by opti transfer enq network t from an a transfer chs shown by the curre: being mai

(2) (ceme the tube a specified c ally show: current as also: illum

transfer che automatic