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ted as a function of distance along the line.

(T&D/PE) 430-1986w

longitudinal redundancy check (LRC) (1) (data transmission) A system of error control based on the formation of a block check following preset rules. *Note:* The check formation rule is applied in the same manner to each character.

(COM) [49]

(2) A parity check performed bit-wise on the rows of a string of characters represented in matrix form, with each bit for each character representing one column in the matrix. *Note:* The LRC is the comparison of the parity of the rows before and after an operation such as a magnetic tape read or transmission through a data communication channel. *See also:* vertical redundancy check.

(C) 610.7-1995

longitudinal resonances (laser maser) (in a beam resonator) Resonances corresponding to modes having the same field distribution transverse to the beam, but differing in the number of half period field variations along the axis of the beam. *Note:* Such resonances are separated in frequency by approximately $v/2L$ where v is the speed of light in the resonator and $2L$ is the round trip length of the beam in the resonator.

(LEO) 586-1980w

longitudinal (common mode) signal (telephone loop performance) The longitudinal voltage is half the algebraic sum of the voltages to ground in the two conductors (tip and ring). The longitudinal current is the algebraic sum of the current in these conductors.

(COM/TA) 820-1984r

longitudinal voltage (1) (power fault effects) A voltage acting in series with the longitudinal circuit.

(PE/PSC) 367-1996

(2) *See also:* common-mode voltage.

(LM/C) 802.3i-1990s

longitudinal wave (1) A wave in which the direction of displacement at each point of the medium is the same as the direction of the propagation.

(Std100) 270-1966w

(2) In a plasma, the type of wave whose restoring force is electrostatic. The associated electric field and particle velocity is in the direction of propagation with accompanying charge density fluctuations.

(AP/PROP) 211-1997

long-lever relay armature An armature with an armature ratio greater than 1:1.

(EEC/REE) [87]

long-line adapter (telephone switching systems) Equipment inserted between a line circuit and the associated station(s) to allow conductor loop resistances greater than the maximum for which a system is designed.

(COM) 312-1977w

long-line current Current (positive electricity) flowing through the earth from an anodic to a cathodic area that returns along an underground metallic structure. *Note:* Usually used only where the areas are separated by considerable distance and where the current results from concentration cell action. *See also:* stray-current corrosion.

(IA) [59]

long packet A packet with a length of over 1518 B. *Synonym:* over-sized packet. *Contrast:* short packet.

(C) 610.7-1995, 610.10-1994w

long-pitch winding (rotating machinery) A winding in which the coil pitch is greater than the pole pitch. *See also:* direct-current commutating machine.

(PE) [9]

long-term settling error The absolute difference between the final value specified for short-term settling time, and the value 1 s after the beginning of the step, expressed as a percentage of the step amplitude.

(IM/WM&A) 1057-1994w

long-term stability (LTS) (power supplies) (ferroresonant voltage regulators) The change in output voltage or current as a function of time, at constant line voltage, load, and ambient temperature (sometimes referred to as "drift"). *See also:* overall regulation.

(AES/PEL/ET) [41], 449-1990s

long-term timebase stability The change in time base frequency (usually given in parts per million) over a specified period of time at a specified sampling rate.

(IM/WM&A) 1057-1994w

long-time-delay phase trip element A direct-acting trip device element that functions with a purposely delayed action (seconds).

(SWG/PE) C37.100-1992

long-time test current (thyristor converter) The specified value of direct current that a converter unit or section shall be capable of carrying for a sustained period (minutes or hours) following continuous operation at a specified lower dc value under specific conditions.

(IA/IPC) 444-1973w

long-time rating A rating based on an operating interval of five minutes or longer.

(NESC/NEC) [86]

longwall machine A power-driven machine used for undercutting coal on relatively long faces.

(PE/EEC/MIN) [119]

long-wire antenna A wire antenna that, by virtue of its considerable length in comparison with the operating wavelength, provides a directional radiation pattern.

(AP/ANT) 145-1993

longword serial A form of word-serial communication that allows 32-bit data transfers between commanders and servants.

(C/MM) 1155-1992

look A colloquial expression for a single attempt at detection of a target.

(AES) 686-1997

look up To use a code-decode table or look-up table to obtain data values or other information.

(C) 610.5-1990w

look-up table A table of values used in obtaining the value of a function using a table look-up procedure. *See also:* code-decode table.

(C) 610.5-1990w, 1084-1986w

loom *See:* flexible nonmetallic tubing.

loop (1) (telephone loop performance) The transmission and signaling channel, with or without gain, between the center of the end office switch and the network interface. It also extends direct current (dc) power to the network interface.

(COM/TA) 820-1984r

(2) **(signal-transmission system and network analysis)** A set of branches forming a closed current path, provided that the omission of any branch eliminates the closed path. *See also:* mesh; signal; ground loop.

(CAS/IE) 155-1960w, [43]

(3) (A) **(software)** A sequence of computer program statements that is executed repeatedly until a given condition is met or while a given condition is true. *Synonym:* iterative construct. *See also:* UNTIL; WHILE; loop control; loop body. (B) **(software)** To execute a sequence of computer program statements as in definition (A).

(C) 610.12-1990

(4) **(data transmission) (telephone circuit)** In communications, loop signifies a type of facility, normally the circuit between the subscriber and central office. (Usually a metallic circuit).

(PE) 599-1985w

loop antenna (1) (data transmission) An antenna consisting of one or more complete turns of conductor, excited so as to provide an essentially uniform circulatory current, and a radiation pattern approximating that of an elementary magnetic dipole.

(PE) 599-1985w

(2) **(overhead-power-line corona and radio noise)** An antenna consisting of one or more turns of a conductor. If the circulatory current is essentially uniform, the antenna will have a radiation pattern approximating that of an elementary magnetic dipole. *Note:* The loop antenna responds to the magnetic field component of the electromagnetic wave, in the direction of the loop axis.

(T&D/PE) 539-1990

(3) An antenna whose configuration is that of a loop. *Note:* If the electric current in the loop, or in multiple parallel turns of the loop, is essentially uniform and the loop circumference is small compared with the wavelength, the radiated pattern approximates that of a Hertzian magnetic dipole.

(AP/ANT) 145-1993

loop assertion A logical expression specifying one or more conditions that must be met each time a particular point in a program loop is executed. *Synonym:* loop invariant. *Contrast:* input assertion; output assertion. *See also:* inductive assertion method.

(C) 610.12-1990

loopback An internal arrow that is the output of a box whose box number is greater than the box number of the box that uses that arrow as input, control, or mechanism. These uses are referred to as input loopback, control loopback, and mechanism loopback, respectively.

(C/SE) 1320.1-1998