

STAN GIBILISCO

THE
ILLUSTRATED
DICTIONARY
OF

Electronics

EIGHTH EDITION

Audio/Video

Consumer Electronics

Wireless Technology

The Illustrated Dictionary of Electronics

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The Illustrated Dictionary of Electronics

Eighth Edition

Stan Gibilisco
Editor-in-Chief

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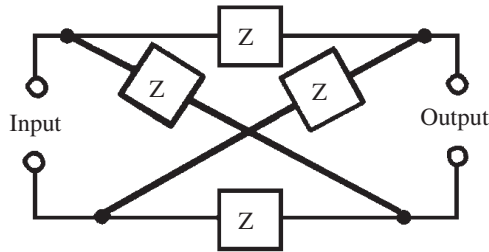
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lattice filter

launching The energy transference from a cable into a waveguide.

lavalier microphone A small microphone that can be hung from the user's neck on a cord or chain.

law **1.** A general, verifiable statement that describes the behavior of entities or the relationships between phenomena or concepts. The product of inductive reasoning that follows many observations and controlled experiments (e.g., *first law of thermodynamics*, *inverse-square law*, *Kirchhoff's laws*, and *Ohm's law*). **2.** The nature of the change of a dependent variable, particularly as depicted by a response curve (e.g., *square law*).

LAWEB Civilian weather bulletins issued every six hours from ship and shore positions along the Great Lakes during the sailing season.

lawn mower **1.** A facsimile term for a helix recording mechanism. **2.** A radar receiver preamplifier.

law of a curve See LAW, **2**.

law of averages In probability and statistics, a principle stating that for a large sampling of events, the numerical probability value will be more closely approached than when the sampling is small. Compare LAW OF LARGE NUMBERS.

law of charges Different electric charges attract each other, and similar charges repel each other.

law of electric charges See LAW OF CHARGES.

law of electromagnetic induction See LENZ'S LAW.

law of electrostatic attraction See COULOMB'S LAWS.

law of electrostatic repulsion See COULOMB'S LAWS.

law of first wavefront In acoustics, a rule stating that the perceived direction from which a sound arrives is determined by the first wavefront that reaches the listener's ears.

law of induction See FARADAY'S LAW.

law of inverse squares See INVERSE-SQUARE LAW.

law of large numbers In probability and statistics, a principle stating that with a large sample, the sample average will approximate the population average. It is often erroneously called LAW OF AVERAGES.

law of magnetism Different magnetic poles attract each other, and similar magnetic poles repel each other.

law of natural decay See EXPONENTIAL DECREASE.

law of natural growth See EXPONENTIAL INCREASE.

law of normal distribution Gauss' law of the frequency distribution of a repetitive function, describing the probability of deviations from the mean.

law of octals Chemical activity occurs between two atoms lacking eight valence electrons, and continues until the requirement of eight electrons is satisfied for all but the first orbit, where only two electrons are required. Of interest in the study of semiconductors.

law of radiation See QUANTUM THEORY.

law of reflection For a ray of energy striking a smooth reflective surface, the angle of reflection is equal to the angle of incidence, with respect to a plane tangent to the surface at the point of incidence.

Lawrence accelerator See CYCLOTRON.

lawrencium Symbol, Lr (occasionally Lw). A short-lived radioactive element produced artificially from californium. Atomic number, 103. Atomic weight, about 260.

lay See DIRECTION OF LAY.

layer **1.** A complete coil winding consisting of turns laid side by side (not on top of each other). **2.** In a semiconductor device, a region having unique electrical properties (e.g., *n layer*). **3.** A region of the ionosphere. See IONOSPHERIC LAYERS. **4.** The tape on a reel or in a cassette, encompassing one complete turn (rotation). **5.** In general, a single stratum of a stratified medium.

layer-to-layer transfer In a roll of magnetic tape, unwanted transfer of data between adjacent turns on the reel. If severe, this transfer can cause drop-in or drop-out in a computer. In audio applications, it can sometimes be heard as a delayed echo or a faint sound occurring just prior to the actual recorded sound.

layer winding A coil winding in which the turns are arranged in two or more concentric layers.

layerwound coil An inductor wound in layers, one on top of the other. Also see LAYER, **1**. Compare SINGLE-LAYER COIL.

layout The arrangement of components on a chassis, printed circuit board, or panel.

lazy-H antenna An antenna consisting of two vertically stacked collinear elements, producing both horizontal and vertical directivity.

Lb Abbreviation of LAMBERT; also, *L* (preferred).

lb Abbreviation of POUND.

L band A radio-frequency band extending from 390 MHz to 1.55 GHz. For subdivisions of this band, see *L_C BAND*, *L_F BAND*, *L_K BAND*, *L_L BAND*, *L_P BAND*, *L_S BAND*, *L_T BAND*, *L_X BAND*, *L_Y BAND*, and *L_Z BAND*.

LC **1.** Abbreviation of LIQUID CRYSTAL; also abbreviated *lix*. **2.** Abbreviation of INDUCTANCE-CAPACITANCE. **3.** Symbol for LC CONSTANT.