

SEVENTH EDITION


MODERN  
DICTIONARY  
*of*  
ELECTRONICS

RUDOLF F. GRAF




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**lithium**—An alkali metal used in the construction of photocells and batteries.

**lithium chloride sensor**—Also called Dunmore cell. A hygroscopic element that has fast response, high accuracy, and good long-term stability and whose resistance is a function of relative humidity.

**lithium-ion**—Abbreviated LiON. A rechargeable battery technology that is able to produce considerably more charge than comparable size nickel-cadmium or nickel-metal hydride batteries.

**lithography**—A method of defining patterns for semiconductor device processing. Patterns are most frequently produced in thin films of materials called resists, which then resist a subsequent processing step being applied to an underlying material in accordance with that pattern. In typical semiconductor integrated-circuit fabrication, many different patterns are used to delineate features in a sequence of processing steps.

**litz wire**—Also called Litzendraht wire. A conductor composed of a number of fine, separately insulated strands that are woven together so that each strand successively takes up all possible positions in the cross section of the entire conductor. Litz wire gives reduced skin effect, hence, lower resistance to high-frequency currents.

**live**—1. A term applied to a circuit through which current is flowing. 2. Connected to a source of an electrical voltage. 3. Charged to an electrical potential different from that of the earth. 4. Reverberant, as a room in which there are reflections of sound. 5. A program that is transmitted as it happens, with no delay.

**live cable test cap**—A protective cap placed over the end of a cable to insulate the cable and seal its sheath.

**live end**—The end of a radio studio where the reflection of sound is greatest.

**live parts**—Metallic portions of equipment that are at a potential different from that of the earth.

**live room**—A room with a minimum of sound-absorptive material, such as drapes, upholstered furniture, rugs, etc. Because of the many reflecting surfaces, any sound produced in the room will have a long reverberation time.

**LLTV**—Also LLLTV and L<sup>3</sup>TV. Abbreviation for low-light television and low-light-level television. A CCTV system capable of operating with scene illumination less than 0.5 lumen/ft<sup>2</sup>.

**LNA**—See low-noise amplifier.

**LNB**—Abbreviation for low-noise block downconverter. A microwave amplifier that converts a block of frequencies to a lower frequency. LNBs for satellite TV typically convert C- and Ku-band signals to a frequency band of 950 to 1450 MHz for input to the receiver.

**LNC**—See low-noise converter.

**L-network**—A network composed of two impedance branches in series. The free ends are connected to one pair of terminals, and the junction point and one free end are connected to another pair.

**LO**—See local oscillator.

**load**—1. The power consumed by a machine or circuit in performing its function. 2. A resistor or other impedance that can replace some circuit element. 3. The power delivered by a machine. 4. A device that absorbs power and converts it into the desired form. 5. The impedance to which energy is being supplied. 6. Also called work. The material heated by a dielectric or induction heater. 7. In a computer, to fill the internal storage with information obtained from auxiliary or external storage. 8. The resistance or impedance that the input of one device offers to the output of another device to which it is connected. See input impedance; termination, 1. 9. The circuit or transducer (e.g., speaker)

## lithium — loaded applicator impedance

connected to the output of an amplifier. The source (e.g., pickup) is loaded by the amplifier's input impedance. 10. The electrical demand placed on a circuit or a system by the utilization equipment connected to it. Also, any piece of electrical utilization equipment of any given rating so connected. 11. To feed a program into a computer system. A common means of loading the program is via a form of magnetic media. The media is inserted into the media drive and the program read into the system's memory.

**load and go**—In a computer, an operation and compiling technique in which the pseudo language is converted directly to machine language and the program is then run without the creation of an output machine-language program.

**load balance**—See load division.

**loadbreak connector**—A connector designed to close and interrupt current on energized circuits.

**load cell**—1. Transducer that measures an applied load by a change in its properties, such as a change in resistance (strain-gage load cell), pressure (hydraulic load cell), etc. 2. A device that produces an output signal proportional to the applied weight or force.

**load circuit**—The complete circuit required to transfer power from a source to a load (e.g., an electron tube).

**load-circuit efficiency**—In a load circuit, the ratio between its input power and the power it delivers to the load.

**load-circuit power input**—The power delivered to the load circuit. It is the product of the alternating component of the voltage across the load circuit and the current passing through it (both root-mean-square values), times their power factor.

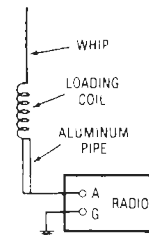
**load coil**—Also called a work coil. In induction heaters, a coil that, when energized with an alternating current, induces energy into the item being heated.

**load curve**—A curve of power versus time—i.e., the value of a specified load for each unit of the period covered.

**load divider**—A device for distributing power.

**load division**—Also called load balance. A control function that divides the load in a prescribed manner between two or more power sources supplying the same load.

**loaded antenna**—1. An antenna to which extra inductance or capacitance has been added to change its electrical (but not its physical) length. 2. An antenna employing a loading coil at its base or above its base to achieve the required electrical length using physically shorter elements.



Loaded antenna.

**loaded applicator impedance**—In dielectric heating, the complex impedance measured at the point of application with the load material properly positioned for heating and at the specified frequency.