

**MODERN
DICTIONARY
of
ELECTRONICS**

SEVENTH EDITION

REVISED AND UPDATED

Rudolf F. Graf



Boston Oxford Auckland Johannesburg Melbourne New Delhi

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Library of Congress Cataloging-in-Publication Data

Graf, Rudolf F.

Modern dictionary of electronics / Rudolf F. Graf. — 7th ed., revised and updated.

p. cm.

ISBN 0-7506-9866-7 (alk. paper)

1. Electronics — Dictionaries. I. Title.

TK7804.G67 1999

621.381'03 — dc21

99-17889
CIP

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

The publisher offers special discounts on bulk orders of this book.

For information, please contact:

Manager of Special Sales

Butterworth-Heinemann

225 Wildwood Avenue

Woburn, MA 01801-2041

Tel: 781-904-2500

Fax: 781-904-2620

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10 9 8 7 6 5 4 3 2 1

Typeset by Laser Words, Madras, India
Printed in the United States of America

REF.
TK
7804
G67
1999 - Oct. 01

and components in the design of integrated circuits. It precedes the artwork. 4. A visual representation of a complete physical entity, usually to scale.

layout wiring drawing—A type of circuit diagram, made to show explicitly each wire, its gage, color coding, and terminations.

lay-up—The technique of registering and stacking layers of a multilayer board before the laminating cycle.

L-band—1. Microwave band in which the wavelengths are at or near 23.5 cm. 2. A radio-frequency band of 390 to 1550 MHz and corresponding wavelengths of 77 to 19 cm. Used for mobile communications.

L-carrier system—A telephone carrier system employed on coaxial-cable systems and microwave line-of-sight and tropospheric-scatter radio systems. It occupies a frequency band extending from 68 kHz to over 8 MHz.

LCC—Abbreviation for leadless chip carrier. A surface-mounted package having metallized contacts (terminals) at its periphery. Usually made of ceramic material.

LCD—Abbreviation for liquid crystal display. 1. A seven-segment (typically) display device consisting basically of a liquid crystal hermetically sealed between two glass plates. One type of LCD (dynamic scattering) depends on ambient light for its operation, while a second type depends on a backlighting source. The readout is either dark characters on a dull white background or white on a dull black background. LCDs have very low power requirements. 2. A display whose segments or elements consist of transparent electrodes etched on glass separated by a liquid that has some crystalline properties, including orderly molecular alignment. Voltage applied to opposing electrodes alters the alignment in the liquid between them, affecting the passage of light through the region (reflected or transmitted), rendering the segments visible by contrast. 3. An optically passive device, in that it does not generate light to produce contrast, whose operation depends on the ability of the liquid crystal to rotate plane-polarized light relative to a pair of crossed polarizers attached to the outside of the display. Rotation of the plane of polarization is a function of the applied field and decreases with increasing field or voltage.

LC product—Inductance (L) in henrys multiplied by capacitance (C) in farads. See figure on p. 416.

L/C ratio—Inductance in henrys divided by capacitance in farads.

LCS—Abbreviation for loudness-contour selector.

L cut—A trim notch in a film resistor that is created by the cut starting perpendicular to the resistor length and turning 90° to complete the trim parallel to the resistor axis, thereby creating an L-shaped cut.

LD—See laser diode.

LD coupler—See laser diode coupler.

LDCS—Abbreviation for long-distance control system. A computer-based communication management system (Datapoint Corporation) that routes long-distance calls over least-cost lines and maintains accounting data on calls.

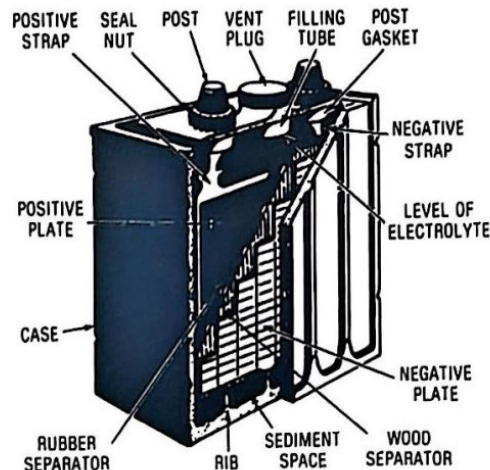
L-display—Also called L-scan. A radar display in which the target indication appears as two horizontal blips, one extending to the right and one to the left from a vertical time base. Azimuth pointing error is indicated by relative blip amplitude, and range is indicated by the position of the signal along the base line.

leaching—The process of dissolving and removing impurities and soluble components from plated items, tank materials, and the like.

lead—1. A wire to or from a circuit element. 2. To precede (the opposite of lag). 3. A wire, with or without

terminals, that connects two points in a circuit. 4. A conductive path that is usually self-supporting.

lead-acid cell—Also called lead cell. A cell in an ordinary storage battery. It consists of electrodes (plates) immersed in an electrolyte of dilute sulfuric acid. The electrodes contain certain lead oxides that change their composition as the cell is charged or discharged.



Lead-acid cell.

lead-acid storage cell—A storage cell in which both plates are lead-antimony or lead-calcium grids filled with spongy lead for the negative plate and lead peroxide for the positive plate. During discharge, the material in both plates is converted to lead sulfide. The electrolyte is a solution of sulfuric acid with a specific gravity of 1.200. The cell voltage is nominally 2 volts but rises to 2.15 volts on float and drops to 1.85 volts on discharge.

lead cell—See lead-acid cell.

lead-covered cable—A cable with a lead sheath. The sheath offers protection from the weather and mechanical damage to the wires contained therein.

lead dress—The placement or routing of wire and component leads in an electrical circuit.

leader—1. Special nonmagnetic tape that can be spliced to either end of a magnetic tape to prevent damage and possible loss of recorded material and to indicate visually where the recorded portion of the tape begins and ends. 2. Tough, nonmagnetic tape spliced ahead of the recorded material on a tape that is expected to receive rough or frequent handling. Usually has one matte-finished surface for writing on, and often available in a variety of colors for coding purposes.

leader cable—A navigational aid in which the path to be followed is defined by a magnetic field around a cable.

leader tape—Also called timing tape. Plain nonmagnetic tape for splicing to either end of magnetic tape to facilitate threading and preserve recorded material, or for splicing between recorded tapes to separate selections or provide pauses.

lead frame—1. A metal frame that holds the leads of a plastic encapsulated package (DIP) in place before encapsulation and is cut away after encapsulation. 2. The metal part of a solid-state device package that achieves electrical connection between the die and other parts of the system of which the IC is a component. Large-scale integrated circuits are welded onto lead frames in such a way that leads are available to facilitate making connections to and from the various solid-state devices