

WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY

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IEEE PRESS



A JOHN WILEY & SONS, INC., PUBLICATION

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Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
Published simultaneously in Canada.

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Library of Congress Cataloging-in-Publication Data is available.

Kaplan, Steven M.

Wiley Electrical and Electronics Engineering Dictionary

ISBN 0-471-40224-9

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

mobile phone Also called **mobile telephone**. 1. A portable phone, especially a cellular phone, which allows a user to place and receive calls to or from any point within its coverage area. Cordless phones are usually excluded from this definition. 2. A cellular telephone installed in a land vehicle, such as a car or truck. Such phones may or may not be removable from the vehicle, and usually have an external antenna. Also called **car phone** (1). 3. A hand-held cellular telephone which can be placed in a cradle in a land vehicle such as a car or truck. The cradle can serve to charge the phone, and many of them allow the user to engage in conversations without holding the phone. Also called **car phone** (2).

mobile phone service Radiocommunication service for mobile phones. Also called **mobile telephone service**.

mobile positioning The use of a system, such as GPS, to keep track of the location of a cell phone, vehicle, fleet of cars, or the like.

mobile positioning system A system, such as GPS, utilized for mobile positioning. Its abbreviation is **MPS**.

mobile processor A CPU designed for use in mobile devices such as notebooks, PDAs, or cell phones.

mobile radio service Same as **mobile service**.

mobile receiver A communications receiver which can be readily moved from one location to another while maintaining proper operation.

mobile robot A robot equipped with a movable platform, a rolling mechanism, or mechanical legs, which allow it to move or travel, depending on the tasks it is meant to execute.

mobile-satellite service Radiocommunication service between mobile stations, utilizing one or more satellites. Also, communications links between said satellites. Its abbreviation is **MSS**.

mobile service Radiocommunication service between mobile stations. Also called **mobile radio service**.

mobile station A station whose location is not fixed. Such a station may be used while in motion, or during stops at any chosen site. A mobile station may be located on a land, water, or air vehicle. This contrasts with a **fixed station**, whose location does not change.

mobile switching center Same as **mobile telephone switching office**. Its abbreviation is **MSC**.

mobile telecommunications Same as **mobile communications**.

mobile telephone Same as **mobile phone**.

mobile telephone service Same as **mobile phone service**.

mobile telephone switching office A structure that houses the computers that monitor and control a mobile cellular communications system. It performs functions such as validating ESNs, establishing connections, tracking calls, arranging handoffs, and gathering billing information. Also called **mobile switching center**. Its abbreviation is **MTSO**.

mobile transmitter A communications transmitter which can be readily moved from one location to another while maintaining proper operation.

mobility The average drift velocity of charge carriers in a semiconductor material, per unit electric field. Also called **carrier mobility**, or **drift mobility**.

mock-up A non-operational model of a device, component, or piece of equipment which can be used, for instance for tests or demonstrations. Also spelled **mockup**.

mockup Same as **mock-up**.

modal bandwidth A measure of the information-carrying capacity of an optical fiber, expressed in units of MHz per kilometer.

modal dispersion A deprecated term for **multimode distortion**.

modal distortion Same as **multimode distortion**.

mode 1. A manner, procedure, form, method, or way of using, operating, or functioning. 2. One of multiple available operational states that can be selected from. Also, operation using such a mode. For instance, the use of a transceiver in reception mode. 3. For a guided electromagnetic wave, one of the possible manners or patterns of oscillation, transmission, or propagation. Such waves can propagate in one of three principal modes, which are as transverse electric waves, transverse magnetic waves, or as transverse electromagnetic waves. Also called **transmission mode** (1). 4. Same as **mode of propagation**. 5. A light path through an optical fiber. 6. Within a group of numbers, series, or set, the value or item which most frequently occurs.

mode changer Same as **mode transducer**.

mode coupling In a waveguide, the transfer of energy between modes.

mode field diameter A measure of the optical power intensity across the end face of a single-mode fiber. Although most of the light is concentrated in the core of such a fiber, some light travels along the inner part of the cladding too. The diameter of the spot of light as it propagates is the mode field diameter. Its abbreviation is **MFD**.

mode filter In a waveguide, a device which lets the energy of one or more modes pass, while others are attenuated or rejected.

mode of propagation Also called **mode** (4). 1. The mode of propagation of electromagnetic waves in a waveguide. The principal modes are as transverse electric waves, transverse magnetic waves, or as transverse electromagnetic waves. 2. The mode of propagation of electromagnetic waves. For instance, via a coaxial cable, optical fiber, waveguide, or atmospheric duct.

mode transducer In a waveguide, a device which changes one mode of propagation into another. Also called **mode transformer**, or **mode changer**.

mode transformer Same as **mode transducer**.

model 1. An object which is built to represent a component, circuit, device, piece of equipment, system, or another object. It can serve, for instance, for illustration, demonstration, or study. 2. A mathematical, physical, or conceptual representation utilized to help understand a component, circuit, device, piece of equipment, system, mechanism, process, or phenomenon. Such a representation may, for example, help understand a complex circuit or device through one or more analogies. 3. A specific style or design of a component, circuit, device, piece of equipment, system.

modeling 1. The creation of a model. 2. The creation of a model with the assistance of a computer.

modem Acronym for **modulator-demodulator**. Also known as **demodulator-modulator**. 1. A device which enables a computer to transmit and receive information over telephone lines. For transmission, a computer modulates a carrier signal so that it contains digital information in a form that can be transmitted over analog lines. It does the opposite for reception. Most modems feature data compression and error-correction. Also called **telephone modem**. 2. Any signal-conversion device which combines the functions of a demodulator and modulator.

modem bank Same as **modem pool**.

modem bonding The combining of two telephone lines to form a single communications channel in which the transmission speed is doubled. Two modems are required in order to use this technology. For example, two 56 kilobits per second modems bonded in this manner provide a 112 kilobits per second connection. Also called **channel bonding** (1), or **line bonding** (1).

modem eliminator A device, such as a null modem cable, which enables computers to communicate with each other

series resistance The total resistance of series resistors.

series resistors Two or more resistors connected in series. The total resistance is the sum of the values of each the individual resistors. Also called **resistors in series**.

series resonance 1. Resonance in a series-resonant circuit. 2. In a series-resonant circuit, the frequency at which the series impedance is lowest. 3. In a series-resonant circuit, the frequency at which the inductive capacitance equals the capacitive reactance.

series-resonant circuit A resonant circuit in which a capacitor and an inductor are connected in series with an AC source. Resonance occurs at or near the minimum impedance of the circuit.

series-resonant frequency The resonant frequency of a series-resonant circuit.

series-shunt network A network composed of multiple H, L, T, and/or π networks connected in cascade. It may consist, for instance, of a cascaded series of H or L networks. Usually used as filters, or as analog-to-digital converters. Also called **ladder network**.

series transformer A current transformer in which the primary winding is connected in series with the main circuit, and the secondary winding to a measuring instrument.

series-tuned Colpitts oscillator A Colpitts oscillator with a tuning capacitor in series with the resonant tank coil, which provides greater stability. Also called **Clapp oscillator**.

series winding In an electric motor or generator, an armature winding connected in series with the field winding.

series-wound generator Same as **series generator**.

series-wound motor Same as **series motor**.

serrated vertical pulse In TV, a vertical sync pulse which is subdivided into six component pulses, each occurring at twice the horizontal scanning frequency. Also called **serrated vertical sync pulse**.

serrated vertical sync pulse Same as **serrated vertical pulse**.

server Also called **network server**. 1. Within a communications network, a computer whose hardware and/or software resources are shared by other computers. Servers, among other functions, control access to the network and manage network resources. There are various types of servers, including application servers, file servers, network access servers, and Web servers. 2. Within a network with a client/server architecture, a computer and/or program which responds to requests made by clients.

server appliance A self-contained server which incorporates both hardware and software, and which is designed to be installed and maintained with a minimum of effort and support. Such a server is usually plugged into an existing network, with all supported applications preinstalled, and is used, for instance, as a Web server, mail server, or file server. Server appliances are configured and accessed via Web browsers. Also called **appliance server**.

server application 1. An application intended to run on a server. 2. An application running on a server. 3. In a client/server environment, an application residing and/or running on a server instead of a client.

server-based That which resides, occurs, or runs on a server. For example, server-based archiving, or a server-based application. That which is **client-based** resides, occurs, or runs on a client.

server-based application An application which resides and/or runs on a server, as opposed to a **client-based application** which resides and/or runs on a client.

server-based archiving Archiving which occurs at a server, as opposed to **client-based archiving** which takes place at a client.

server-based computing The use of applications stored and/or run on a server. This contrasts with **client-based computing**, in which applications are stored and/or run on a client.

server cluster Same as **server farm**.

server farm Two or more networked servers which are housed at a single location. Used, for instance, to balance the overall load of a network, or for redundant backup of resources or data. Also called **server cluster**.

Server Information Table A table containing the information gathered utilizing a **Service Advertising Protocol**.

Server Message Block A file-sharing protocol utilized, for instance, over the Internet. Its abbreviation is **SMB**. Also called **Server Message Block Protocol**.

Server Message Block Protocol Same as **Server Message Block**.

server not found An error 404 resulting from the server not being available. Also called **cannot find server**.

server operating system Its abbreviation is **SOS** (4). 1. An operating system which resides on a server. 2. An operating system which runs a server.

server-parsed HTML Same as **SHTML**.

server program Also called **server software**. 1. A program intended to run on a server. 2. A program running on a server. 3. In a client/server environment, a program residing and/or running on a server instead of a client.

server side Any activity, such as processing, occurring at the server within a **client/server architecture**.

server-side include Additional or alternate information, such as the date of the most recent update or the inclusion of selected text, which is incorporated into an HTML file before being sent from the server side to the client side, resulting in an SHTML document. Also, a command to include such information. Its abbreviation is **SSI**.

server-side script A script run on a server, such as a Web server. A **client-side script** is run on a client, such as a Web browser.

server software Same as **server program**.

service 1. Any activity involving installation, supplying, maintenance, or repairs. Such activities are meant to be performed by qualified personnel, and may or may not be a part of a warranty or other agreement to provide said services. 2. An established or otherwise organized system which is meant to supply the needs of the public. For example, a broadcasting, telephone, satellite, or information service. 3. Proper function or operation. For instance, the service life of a device. 4. A level or category within multiple offerings or possibilities. For example, dial-up, cable, or DSL access to the Internet.

service access point Its abbreviation is **SAP**. 1. A junction that interconnects networks, network layers, or network services. 2. A point where a circuit may be accessed.

Service Advertising Protocol In a communications network, a protocol utilized to identify information such as the addresses and services of available servers. A **Server Information Table** contains the data so gathered. Its abbreviation is **SAP**.

service area The geographical area within which a given transmitter provides effective service. For instance, the zone served by a cellular telephone system, the region within which reception of TV or radio broadcasts is adequate, or the zone a radar can effectively scan. Also called **coverage** (1), or **coverage area**.

service band A frequency band allocated to a given class of communications services.

service cable Same as **service wire**.