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ELECTRONICS  
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# WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY

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of 44.1, as the latter has been divided by 2. Also spelled **submultiple**.

**subnanosecond** A time interval shorter than a nanosecond. Also spelled **sub-nanosecond**.

**subnet** Abbreviation of **subnetwork**.

**subnet mask** Abbreviation of **subnetwork mask**.

**subnetwork** A network within a larger network. For example, the Internet is a worldwide network of interconnected autonomous networks, each of which is a subnetwork. Its abbreviation is **subnet**. Also spelled **sub-network**.

**subnetwork mask** A bit combination which identifies which portion of an IP address corresponds to the network or subnetwork, and blocks out the rest. For example, a network may use the same values in the first three address fields of a four field address such as WWW.XXX.YYY.ZZZ, and block out, or mask, all but the ZZZ portion, since it is the only one that will vary. Its abbreviation is **subnet mask**. Also spelled **sub-network mask**. Also called **address mask**, or **network mask**.

**subnotebook** Same as **subnotebook computer**. Also spelled **sub-notebook**.

**subnotebook computer** A computer which is lighter and smaller than a notebook computer, but larger than a handheld computer. Such a computer usually weighs less than one kilogram, and generally features computing power similar to a desktop model. Also spelled **sub-notebook computer**. Also called **subnotebook**, or **mini-notebook**.

**subpanel** A panel which forms part of a larger panel. For instance, that which provides additional controls. Also spelled **sub-panel**.

**subprogram** A part, such as a subroutine or module, of a larger program. For example, a subroutine can be invoked by a program to perform a given task, then return control to the invoking program. Also spelled **sub-program**.

**subroutine** Within a computer program, a small group of instructions which perform a given task. Also spelled **sub-routine**. Also called **routine** (1), **function** (3), or **procedure** (2).

**subschemata** A subset within a schema. It may consist, for instance, of a database description from the perspective of a specific application, or the part of a database pertaining to a given department within an enterprise. Also spelled **sub-schema**.

**subscribe** 1. To pay or otherwise sign-up for a given service, such as CATV. 2. To authorize an entity to send information. For example to agree to become part of a mailing list.

**subscriber** A user or other entity which has been authorized to utilize or receive one or more services. For example, a user who has paid for access to the Internet, telephone service, or satellite channels.

**Subscriber Identity Module** Same as **SIM**.

**Subscriber Identity Module card** Same as **SIM card**.

**subscriber line** A pair of wires, or its equivalent, extending from a telephone central office to the premises of a customer. Also called **subscriber loop**, **loop** (7), **local loop**, **local line**, or **line loop**.

**subscriber line interface circuit** A circuit, usually in the form of a chip, that converts a two-wire subscriber line signal into a four-wire signal, and vice versa, at a central office, PBX, or the like, and which in addition performs other functions such as line supervision. Its acronym is **SLIC**.

**subscriber loop** Same as **subscriber line**.

**subscription television** Same as **subscription TV**.

**subscription TV** Abbreviation of **subscription television**. Also called **pay TV**. 1. A service in which payment is made

and premium channels. A decoder box is usually necessary for such programming. 2. Any TV service which requires payment. These include **subscription TV** (1), basic satellite, premium cable, and so on.

**subset** A set which is contained within or forms part of another larger set.

**subsonic** Pertaining to, generating, sensitive to, or utilizing **subsonic frequencies**. Also spelled **sub-sonic**. Also called **infrasonic**.

**subsonic frequency** A frequency below the range that humans can hear. That is, below about 20 Hz. Also spelled **sub-sonic frequency**. Also called **subaudible frequency**, or **infrasonic frequency**.

**subsonic phenomena** Phenomena occurring within, or pertaining to **subsonic frequencies**. Also spelled **sub-sonic phenomena**. Also called **infrasonic phenomena**.

**substation** A station which is a part of a larger station, which supplements a larger station, or which is located between larger stations or between a larger station and another location. For example, a station between a power station and a group of homes. Also spelled **sub-station**.

**substitution method** 1. A method of measurement in which an unknown quantity is determined via the replacement with known quantities which have the same effect as that which has been replaced. For example, the determination of an unknown resistance by placing a resistor with a known value in its place. 2. The substitution of a component or device with an equivalent one, for testing, troubleshooting, or performing repairs.

**substrate** 1. The base layer, or other surface upon which something is deposited, etched, attached, or otherwise prepared or fabricated. A substrate also provides physical support and insulation. For example, the base film of a magnetic tape, or the plastic base of a compact disc. 2. A **substrate** (1) utilized in the manufacturing of circuits and microcircuits. Such a substrate may be made, for instance, of ceramic, plastic, glass, or a semiconductor material. An active substrate has active elements, such as transistors, formed directly on it, while passive substrates have components mounted upon them.

**substring** A subset within, or portion of, a **string**. Also spelled **sub-string**.

**subsystem** Also spelled **sub-system**. 1. A system which is a part of, or assists, a larger system. Cache memory, for instance, is a specialized high-speed storage subsystem. 2. A system which is subordinate to another system.

**subterranean** Located or utilized beneath the surface of the earth.

**subtitles** In TV programming, and similar multimedia presentations such as films presented in theaters, the providing of text, and symbols such as ♪, which are intended to accurately transcribe the dialogue and describe the sounds of that being presented. A decoder is not necessary to show subtitles, as the displayed text and symbols are always superimposed on the viewed image. Useful, for instance, for those with reduced hearing. This contrasts with **closed-captioning**, which requires a decoder to appear on-screen.

**subtractor** Same as **subtractor**.

**subtractor circuit** Same as **subtractor**. Also spelled **subtractor circuit**.

**subtractive color** A color formed by a **subtractive mixture**.

**subtractive color process** A method of producing colors through a **subtractive mixture**. Also called **subtractive process**, or **subtractive synthesis**.

**subtractive color system** A system of combining subtractive