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Steven M. Kaplan  
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**varactor tuning** The use of one or more varactors for tuning. Used, for instance, in receivers or oscillators. Also called **varicap tuning**.

**VARhour** Same as VAR-hour.

**VARhour meter** Same as VAR-hour meter.

**variable** Its abbreviation is **var** (2). 1. A number, quantity, or magnitude which does not have a fixed value. Also, a symbol, such as *x*, representing such a variable. 2. A number, quantity, or magnitude which can assume any of multiple values. Also, a symbol, such as *x*, representing such a variable. 3. That which changes, or tends to change over time. Also, a symbol, such as *x*, representing such a variable. 4. That which changes during a given process. Also, a symbol, such as *x*, representing such a variable.

**variable attenuator** A circuit or device which reduces the amplitude of a signal, ideally without introducing distortion, by a continuously-variable amount, or in steps.

**variable bias** A bias value that changes, or that can be adjusted. Automatic bias is an example.

**variable bit rate** In ATM, a minimum bandwidth which is guaranteed to be maintained. Utilized, for instance, for audio and/or video conferencing. Variable bit rate has real-time and non-real-time versions. Its abbreviation is **VBR**.

**variable block** A data block whose size or length may be varied, depending on the needs.

**variable-capacitance diode** Same as **varactor**.

**variable capacitor** A capacitor whose capacitance can be varied. This may be accomplished, for example, through the use of rotating plates. Also known as **variable condenser**, **adjustable capacitor**, or **adjustable condenser**.

**variable-carrier modulation** A type of amplitude modulation in which the amplitude of the carrier wave is varied according to the percentage of modulation, providing for an essentially constant modulation factor. Also called **controlled-carrier modulation**, or **floating-carrier modulation**.

**variable component** An electrical component, such as a capacitor or resistor, whose value which can be adjusted.

**variable condenser** Same as **variable capacitor**.

**variable coupling** Inductive coupling between circuits which can be varied. This may be accomplished, for instance, by adjusting the position of one coil with respect to another.

**variable data printing** Printing, such as that of brochures, in which each set of sheets has different content.

**variable-depth sonar** Sonar in which the depth of the underwater sound projectors and hydrophones can be varied. Its abbreviation is **VDS**.

**variable field** 1. A field, such as a dynamic magnetic field, whose intensity varies over time. 2. Same as **variable-length field**.

**variable frequency** 1. A frequency, such as a modulated carrier frequency in FM, which varies over time. 2. A frequency, such as that of a variable-frequency oscillator, which can be varied.

**variable-frequency oscillator** An oscillator whose frequency can be adjusted. This adjustment may occur in discrete steps, or through a continuous range. This contrasts with a **fixed-frequency oscillator**, whose frequency cannot be varied. Its abbreviation is **VFO**.

**variable inductance** Same as **variable inductor**.

**variable inductor** An inductor whose inductance can be adjusted. It may consist, for instance, of a coil whose inductance can be varied by using one or more moving elements such as taps or sliding contacts. This contrasts with a **fixed inductor**, which has a single inductance which cannot be varied. Also called **variable inductance**.

**variable-length field** A data field whose size in bits or bytes is determined by the amount of data stored. This contrasts

with a **fixed-length field**, whose size can not be adjusted. Also called **variable field** (2).

**variable-length record** A data record composed of **variable-length fields**. This contrasts with a **fixed-length record**, which is composed of fixed-length fields.

**variable-mu tube** An electron tube whose mu, or amplification, factor can be varied.

**variable output** 1. An output, such as that of an audio amplifier, whose level can vary. 2. An output whose level is varied.

**variable reactor** Same as **varactor**.

**variable-reluctance motor** A brushless synchronous motor that does not utilize a permanent magnet, and which does not have a coil in its rotor. Such a motor has pointed poles in both the stator and rotor, and the coils of the stator are fed the energizing current, which creates a magnetic pulling force that enables rotation. Reluctance motors are comparatively robust and efficient, and can be used when very high ambient temperatures are present. Its abbreviation is **VR motor**. Also called **reluctance motor**, or **switched-reluctance motor**.

**variable-reluctance pickup** A phonographic pickup that converts the movements of the stylus into the corresponding audio-frequency voltage output by varying the reluctance of an internal magnetic circuit. Also called **magnetic pickup**, or **magnetic cartridge**.

**variable-reluctance transducer** A transducer which converts a parameter, magnitude, signal, or phenomenon into a proportional change in the reluctance of a magnetic circuit, or vice versa.

**variable-resistance transducer** A transducer which converts a parameter, magnitude, signal, or phenomenon into a proportional change in the resistance of a circuit, or vice versa.

**variable resistor** Also known as **adjustable resistor**. 1. A resistor whose resistance may be varied by a mechanical device such as a sliding contact. Also called **rheostat**. 2. Same as **varistor**. 3. Any resistor whose resistance may be varied.

**variable-speed motor** A motor whose speed can be varied while under load. Also called **adjustable-speed motor**.

**variable transformer** A transformer whose output voltage can be varied between some minimum, or zero, and a maximum. This is generally accomplished by means of a sliding contact arm. In most cases, a variable transformer is an autotransformer. Also known as **adjustable transformer**.

**variable voltage divider** A voltage divider that utilizes adjustable resistors to vary the voltage. A potentiometer is an example. Also known as **adjustable voltage divider**.

**Variac** A **variable transformer** which is usually utilized for the adjustment of an AC voltage. Used, for instance, when a specific voltage above or below the line voltage is needed.

**variance** In statistics, the value obtained by adding the squares of the differences between each number and the mean value of a set, series, or population, and dividing by the number of members of said set. The square root of variance is called **standard deviation**.

**varicap** Same as **varactor**.

**varicap diode** Same as **varactor**.

**varicap tuning** Same as **varactor tuning**.

**variometer** A variable inductor incorporating two coils connected in series, one of which is rotated to adjust overall inductance values. Such coils are usually mounted concentrically.

**varistor** A semiconductor device which serves as a variable resistor. Its resistance value is determined by its input voltage, and an example is a metal-oxide varistor. Also called **voltage-dependent resistor**, **variable resistor** (2), **voltage-controlled resistor**, or **adjustable resistor** (2).

**varmeter** An instrument which measures the active power in vars. Also s

**VB** Abbreviation of **Visual**

**VBI** Abbreviation of **vertical**

**VBR** Abbreviation of **varial**

**VBR-non-real time** Abbr

**real-time**. In ATM, varia

support real-time applica

conferencing. Its own abt

**VBR-nrt** Abbreviation of **V**

**VBR-real time** Abbreviat

In ATM, variable bit rate

applications such as audi

own abbreviation is **VBR**.

**VBR-rt** Abbreviation of **VI**

**VCA** 1. Abbreviation o

2. Abbreviation of **voltage**

**vCalendar** A specification

the exchange of schedul

tions and devices. Used,

data between PDAs, PIM

puters.

**vCard** A specification or s

ness cards. Used, for ins

name, job title, telephone

physical address, betwe

PDAs, PIMs, cell phones,

**VCCS** Abbreviation of **volt**

**VCD** Abbreviation of **vide**

**VCI** Abbreviation of **Virtu**

**VCL** Abbreviation of **Virtu**

**VCN** Abbreviation of **virtu**

**VCO** 1. Abbreviation o

2. Abbreviation of **Voice**

**VCR** 1. Abbreviation of **vi**

violation of **voltage-contro**

**VCSEL** Acronym for **Ver**

ser. A laser diode that e

face, as opposed to its

manufacture and easier to

efficient and durable. Sinc

more circular, it is espec

fibers.

**VCVS** Abbreviation of **volt**

**VCXO** Abbreviation of **volt**

**Vdc** Abbreviation of **volts**

**VDC** Abbreviation of **volts**

**VDD** Abbreviation of **virtu**

**VDR** 1. Abbreviation of **v**

recorder. 2. Abbreviation

**VDS** Abbreviation of **varia**

**VDSL** Abbreviation of **v**

line, or very high bit-rate

of DSL utilizing copper

data transfer rates of up to

to over 100 Mbps down

affected significantly by

and the shorter the distan

**VDI** Abbreviation of **vide**

play terminal.

**VDU** Abbreviation of **vis**

unit.

**vector** 1. Same as **vector**

tion of a **vector quantit**

as a single column. 4.