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Steven M. Kaplan
Lexicographer



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Kaplan, Steven M.

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anonymous remailer On the Internet, an email service that enables users to send messages to others without the recipients knowing the return address.

ANSI Acronym for American National Standards Institute. An organization involved in the facilitation of development of technical standards. Its main objectives include minimizing incompatibility problems on a global basis in order to promote the advancement of technology. It is a member of the International Organization for Standardization and the International Electrotechnical Commission.

ANSI character set An ANSI-defined 8-bit character set that includes 256 characters. It incorporates many foreign characters, symbols, and special punctuation.

ANSI X12 An ANSI standard pertaining to EDI. Its abbreviation is X12.

answer-back A response that a computer gives when requested to identify itself within a network.

answer-only modem A modem which can answer incoming calls, but cannot originate any.

answering machine A device which automatically answers calls, plays a message, and records messages left by callers. Such a device may be incorporated into a telephone, into a similar device, such as a properly equipped fax or computer, and so on. Also called **telephone answering machine**.

antenna A device that radiates and/or receives radio waves. The same antenna can usually be used for both transmission and reception. There are many types of antennas, their selection depending on the uses and operating frequencies desired. Also known as **aerial**.

antenna-amplifier A device which incorporates an antenna and an amplifier. Used mostly for compact portable units. Its abbreviation is **antennafier**.

antenna amplifier An amplifying device or component which improves the signal-to-noise ratio of a receiving antenna. Such a component or device may be within the antenna, or nearby.

antenna aperture An opening through which radiated energy passes to or from an antenna.

antenna array An assembly of antenna elements with the proper dimensions, characteristics, and spacing, so as to maximize the intensity of radiation in the desired directions. Also called **array (2)**, or **array antenna**.

antenna beamwidth The angle between the points at which the intensity of an antenna is at half of its maximum value. It can be measured in the horizontal plane or the vertical plane. Also called **beamwidth of antenna**.

antenna coil A coil through which the antenna current passes.

antenna coincidence The circumstance where two directional antennas are pointing directly at each other.

antenna-converter A device which incorporates an antenna and a converter. Intended to extend the available reception frequencies. Its abbreviation is **antennaverter**.

antenna counterpoise One or more wires mounted close to the ground, but insulated from it, to form a low-impedance and high-capacitance path to said ground. This provides a radio-frequency ground for the antenna. Also called **counterpoise**.

antenna coupler A device, such as an RF transformer, utilized to match the impedance of a transmitter and/or receiver to an antenna, so as to provide maximum power transfer. This enables, for example, the use of a shorter antenna than would ordinarily be needed.

antenna crosstalk The unwanted transfer of power through space between antennas. It is equal to the ratio of the power received by one antenna, to the power radiated by the other. It is usually expressed in decibels.

antenna current 1. The RF current flowing into an antenna, measured with no modulation present. 2. The RF current flowing out of an antenna, measured with no modulation present.

antenna detector A device, which incorporates an antenna, that signals when being tracked by radar.

antenna diplexer A device which allows two transmitters to use the same antenna simultaneously or alternately. Used, for example, in TV broadcasting to transmit the audio and video content via the same antenna. Also called **diplexer**.

antenna directivity The gain of an antenna in relation to the direction it is pointed in. For example, an omnidirectional antenna has, within the same plane, a uniform radiation and reception pattern.

antenna duplexer A device which enables a single antenna to be used to transmit and receive simultaneously or alternately. Used, for example, in radars. Also called **duplexer**.

antenna effect In a loop antenna, an unbalancing of the directional properties due to interference from nearby objects. This can cause it to act partially as a small vertical antenna. Electrostatic shielding can help minimize this effect. Also called **height effect**.

antenna efficiency The ratio between the received energy and the radiated energy of an antenna. Usually expressed as a percentage. If there were no losses, the antenna efficiency would be 100%.

antenna element Within an antenna array, one of multiple radiators which contribute to its overall transmission and/or reception characteristics. Such an element may be driven, or parasitic. Also called **element (4)**.

antenna factor The ratio of an incident electric field to the voltage received at the antenna terminals. It is usually expressed in decibels.

antenna feed The transmission line, such as a coaxial cable, which carries signals between a transmitter and an antenna. Also called **antenna feeder**, **antenna transmission line**, **feed (5)**, or **feed line**.

antenna feed point The point in an antenna where the antenna feed is received. Also called **feed point (2)**.

antenna feed point impedance The impedance at an antenna feed point. Also called **feed point impedance**.

antenna feeder Same as **antenna feed**.

antenna field A group of antennas arranged in a manner so as to maximize the intensity of radiation in the desired directions.

antenna gain The effectiveness, generally expressed in decibels, of a directional antenna as compared to a given standard, such as a dipole or isotropic antenna. Its symbol is A. Also known as **gain (2)**.

antenna height 1. The height of an antenna above the terrain immediately surrounding its location. 2. The height of an antenna above the average level of the terrain within a given radius surrounding its location. Also called **antenna height above average terrain**, or **height above average terrain**.

antenna height above average terrain Same as **antenna height (2)**.

antenna lens An antenna that uses an arrangement of metal and/or dielectric objects as a lens to focus the radio waves. Also called **lens antenna**.

antenna loading The utilization of inductive and/or capacitive elements to increase the electrical length of an antenna, or otherwise alter its characteristics. Also called **loading (1)**.

antenna lobe Within an antenna pattern, a three-dimensional section in which radiation and/or reception is increased. Also called **lobe (1)**, or **directional lobe (1)**. When referring specifically to radiation, also known as **radiation lobe**.

cord for future use. Usually utilized in the context of programming that is recorded for later broadcasting.

transcriber That which serves to **transcribe**.

transcription 1. The process of copying or transferring data from one medium to another, while performing the necessary conversions, such as those involving formatting, to the new medium. Also, the result of such a process. 2. The process of recording for future use. Also, the recording so made.

transcutaneous electrical nerve stimulation The use of electrodes placed on the skin for the application of weak electrical discharges intended to reduce pain. Its acronym is TENS. Also called **transcutaneous nerve stimulation**.

transcutaneous nerve stimulation Same as **transcutaneous electrical nerve stimulation**.

transducer 1. A component, circuit, or device which converts a non-electrical parameter, magnitude, signal, or phenomenon into a proportional or corresponding electrical equivalent. Also, that which performs the converse transformation. For example, a microphone converts acoustic energy into electrical energy, while a speaker converts electrical energy into acoustic energy. There are many other examples, including piezoelectric, magnetic, pressure, photoelectric, and resistive transducers. Nearly all transducers are sensors of some kind. 2. A component, circuit, or device which converts an input in one energy form and produces an output in another energy form. For example, a photoelectric cell converts light energy into electrical energy. 3. A component, circuit, or device which converts a parameter, magnitude, signal, or phenomenon in one form into that in another form. For example, that which converts a movement into a change in pressure, as occurs in a piston.

transducer amplifier 1. An amplifier that increases the output signal of a transducer. 2. An amplifier that increases the input signal of a transducer.

transducer efficiency For a given transducer, the ratio of the power output in the desired form, to the power input.

transductor An electromagnetic device which utilizes one or more saturable reactors to obtain amplification. Depending on the design, a magnetic amplifier can achieve a very large power gain, and may be used, for instance, in servo systems requiring sizeable amounts of power to move heavy loads. Also called **magnetic amplifier**.

transfer 1. To move or cause to move or pass from one location or entity to another. For example, a charge, power, heat, or funds transfer. Also, such a movement or passing. 2. The movement or copying, without alteration, of data from one location to another. This may be, for instance, across a data bus, a peripheral bus, or between nodes of a network, to name a few. Also called **data transfer**.

transfer characteristic 1. The relationship between an input magnitude, such as a voltage, to an output magnitude, such as a current. Also, the relation between an output magnitude, such as a voltage, to an input magnitude, such as a current. Usually expressed as a graph or plot. 2. The relationship of the voltage of one electrode to the current of another, with all other electrodes having a fixed voltage. 3. The relationship between the illumination incident upon a camera tube and the output signal current, under specified conditions.

transfer check A verification of the accuracy of a **transfer** (2).

transfer function A mathematical function which expresses the relationship between the output of a component, circuit, device, piece of equipment, or system, and its input. For instance, the relationship between the output of a linear control system and its input.

transfer impedance A measure of the shield effectiveness of a transmission line, such as a cable. The lower the transfer impedance, the more effective the shielding.

transfer protocol A protocol utilized for transferring data and/or files over a communications network, such as the Internet.

transfer rate The speed at which bits or bytes are transmitted over a communications line or bus. Usually measured in some multiple of bits or bytes per second. Also called **data rate**, **data transfer rate**, **bit transfer rate**, **bit rate**, or **line rate**.

transfer resistor Same as **transistor**.

transfer time 1. The time that elapses between one set of contacts being opened and another set of contacts being closed. 2. In an uninterruptible power supply, the time that elapses between the failure of the primary source, such as mains AC, and the transfer of power to the battery or generator. 3. The time required for data to be transferred from one point to another. For example, that required for transfers between nodes, or for a download to be completed.

transform 1. To change in nature, function, operation, state, format, or the like, from one form or manifestation into another. 2. To transfer energy using a **transformer**.

transformation 1. The process of changing in nature, function, operation, state, format, or the like, from one form or manifestation into another. Also, having undergone such a transformation. 2. The transfer of energy using a **transformer**.

transformation ratio Same as **turns ratio**.

transformer A component or device which is utilized to transfer electrical energy from one circuit to another via magnetic or electromagnetic induction. A transformer has no moving parts and consists of two or more coils of wire separately wrapped around a magnetic core. The coils are inductively linked by magnetic lines of force, and do not come into physical contact. A transformer is usually utilized to change electrical energy at one AC voltage to another, with a step-down transformer providing an output voltage lower than its input voltage, and a step-up transformer providing an output voltage higher than its input voltage. The winding that is directly connected to the input power is the primary, while the winding or windings that provide the output to the load or loads are the secondaries. The output of a variable transformer can be adjusted between given values.

transformer-coupled amplifier An amplifier whose stages are coupled via **transformers**.

transformer coupling The coupling of two circuits by means of a mutual inductance provided by a transformer. In RF circuits, for instance, such coupling minimizes the capacitance between stages, which improves performance. Also called **inductive coupling** (2).

transformer efficiency For a given transformer, the ratio of the output power to the input power. Usually expressed as a percentage.

transformer hybrid A hybrid junction incorporating two or more transformers. Also called **hybrid set**.

transformer input current Same as **transformer primary current**.

transformer input voltage Same as **transformer primary voltage**.

transformer loss Also called **transformer losses**. 1. Any power which is dissipated by a transformer without performing useful work. 2. The ratio of the power an ideal transformer would deliver to a load under specified conditions, to the power a given transformer actually delivers to the same load under the same conditions. Usually expressed in decibels.

transformer losses Same as **transformer loss**.

transformer oil A specially-processed insulating oil, such as mineral oil, utilized in transformers.

realtime video conferencing Same as **real-time video conferencing**.

RealVideo A popular format for streaming video.

Réaumur scale Same as **Réaumur temperature scale**.

Réaumur temperature scale An obsolete temperature scale in which water freezes at 0 degrees and boils at 80 degrees. Also called **Réaumur scale**.

rear projection The projection, onto a translucent screen, of images sent from a separate unit, and in which the projector and any viewers are on opposite sides of said screen. Used, for instance, in rear-projection TVs. This contrasts with **front projection**, where the images are viewed on a non-translucent screen, and the projector and viewers are on the same side of said screen.

rear-projection television Same as **rear projection TV**.

rear projection TV Abbreviation of **rear-projection television**. A TV with **rear projection**.

rear-surface mirror A mirror whose reflective coating is on its rear surface, as is the case with a household mirror. This contrasts with **front-surface mirror**, in which the reflective coating is on the front surface. Also called **second-surface mirror**, or **back-surface mirror**.

rear wave An acoustic wave which is radiated by the back of a loudspeaker, which can cancel the waves radiated from the front of the loudspeaker. An infinite baffle completely isolates the back waves from the front waves, while a port helps both waves to be in phase. Also called **back wave**.

reassembly In a packet-switched network, the reconstitution of a packet at the receiving end, after **segmentation** at the transmission end. Also spelled **re-assembly**.

rebecca In the **rebecca-eureka** system, the airborne interrogator.

rebecca-eureka Same as **rebecca-eureka system**.

rebecca-eureka system A radar homing system which utilizes an airborne interrogator, called **rebecca**, and a ground transponder beacon, called **eureka**. Also called **rebecca-eureka**.

reboot To reset a computer. During this process the computer accesses instructions from its ROM chip, performs self-checks, loads the operating system, and prepares for use by an operator. A rebooting may be initiated by pressing a button or switch, by hitting a specific key sequence, or through a program or routine that gives this command. It is an abbreviation of **rebooting**.

rebooting Same as **reboot**.

rebroadcast Also spelled **re-broadcast**. 1. To repeat or reemit a broadcast. 2. A broadcast that is repeated or relayed by a station other than that emitting the original broadcast.

rebuild Also called **reconstruct**, or **remodel**. 1. To make repairs that are so extensive that it is equivalent to building again. 2. To build again.

recall 1. To restore to a former condition. Also, the act of restoring to a former condition. 2. In computers, a retrieval of information. Also, the act of retrieving information. 3. To request that a defective manufactured product be returned for adjustment, repair, or disposal. Also, the process of informing of such a recall, and making the changes. 4. Same as **redial**.

receipt notification A confirmation or notification given to a sender that a given email has been received or opened by a recipient.

received power 1. The power an antenna receives from a transmitter or other signal source. 2. The power a device receives from a transmitter or other signal source.

receiver Its abbreviation is **RX**. 1. A component, device, piece of equipment, or system which accepts information-

bearing signals, and which can extract the meaningful information contained. There are many types of receivers, including those utilized in communications, TV and entertainment, radars, and so on. Signals may arrive from land-based antennas, satellites, remote controls, and so on. 2. A single audio-frequency component which incorporates a preamplifier, a power amplifier, and a tuner. Such a component usually has multiple inputs for CDs, DVD, TVs, tape decks, and so on, and may have circuitry for specialized sound reproduction, such as Dolby surround sound. 3. Same as **radio receiver**. 4. A small loudspeaker located in the handset of a telephone, which enables listening. Also called **earphone** (3), or **telephone receiver** (1). 5. That which is a destination or which otherwise accepts signals, energy, particles, waves, or the like, which move from one point to another.

receiver bandwidth 1. The interval of frequencies within which a receiver can produce a given proportion of its maximum output. Usually calculated at 50% or 90% of full power. 2. The interval of frequencies within which the performance of a receiver falls within certain limits.

receiver muting In a transceiver or transmitter-receiver, the reduction or silencing of the receiving input while transmitting. This may occur manually or automatically.

receiver noise 1. The electrical noise generated by a receiver in the absence of an input signal. 2. Any noise generated by a receiver.

receiver noise factor For a specified bandwidth, the ratio of the total noise output to the total noise input for a given receiver. It is the additional noise a receiver adds to any signal it accepts. Usually expressed in decibels, in which case it is called **receiver noise figure**.

receiver noise figure The **receiver noise factor** expressed in decibels.

receiver off-hook The condition where a telephone is not in use, yet the handset is removed from its cradle. This may occur, for instance, by not hanging up after a call. There is usually a loud warning tone to indicate that this condition exists. Its abbreviation is **ROH**.

receiver primaries Colors which are combined in an additive mixture to yield a full range of colors to be displayed by a color TV receiver. Red, green, and blue are most commonly used as the additive primary colors. Also called **display primaries**.

receiver selectivity 1. The degree to which a receiver can differentiate between a desired signal and other signals. 2. The degree to which a receiver rejects the signals of channels adjacent to that which is desired. Also called **adjacent-channel selectivity**.

receiver sensitivity 1. For a receiver, the minimum input signal level which will produce a discernable output signal. 2. For a receiver, the minimum input signal level which will produce an output signal with a signal-to-noise ratio equal to or greater than a given value.

receiver set Same as **radio receiver**.

receiver synchro In a synchro system, the synchro which converts the voltage received from the synchro transmitter into the corresponding angular position of its stator. Also called **synchro receiver**.

receiving antenna An antenna which picks up electromagnetic radiation. There are many types of receiving antennas, including those utilized in communications, TV and entertainment, radars, and so on. A single antenna may be able to be used for both transmission and reception.

receiving device A device, such as a GPS Receiver, a beacon receiver, or a receiving fax, which picks up or receives a signal emitted or sent by a transmitting device utilizing the same system.

such as wave propagation. Also called **transmission line modeling**. Its abbreviation is **TLM**.

transmission line modeling Same as **transmission line matrix**. Its abbreviation is **TLM**.

transmission line noise Noise generated in a transmission line, in addition to that present in the applied signal. Such noise may be due, for instance, to poor connections, or power-line current or voltage fluctuations. Also called **line noise**.

transmission line termination Same as **termination**.

transmission line transformer A transformer utilized to match transmission line impedances, or for line balance, isolation, or connection to equipment or additional circuits. Also called **line transformer**.

transmission loss Also called **transmission losses**. 1. A reduction in the strength of a signal during its transmission from one point to another. Usually expressed in decibels. 2. **Transmission loss (1)** expressed as the ratio of the power at the second or reception point, to the power at the first or transmission point.

transmission losses Same as **transmission loss**.

transmission mode 1. 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 transverse electromagnetic waves. Also called **mode (3)**. 2. In a transceiver, operation in which signals are sent. This contrasts with **reception mode**, in which signals are received. Switching between the two modes may be automatic or manual.

transmission ratio Also called **transmission coefficient**, or **transmission factor**. 1. The ratio of the flux transmitted by a body, to the flux incident upon the same body. 2. The ratio of the radiant energy transmitted from a body, to the total radiant energy incident upon the same body.

transmission speed The rate at which data, or any form of information, is transmitted over a communications line. Such a speed may be expressed, for example, in some multiple of bits per second. Also called **communications speed**.

transmissivity Same as **transmittivity**.

transmissometer An instrument or device which measures the level of transmission of light through a medium, such as the atmosphere.

transmit Its abbreviation is **XMIT**, or **XMT**. 1. To transfer something from one entity to another. For example, to cause a disturbance to propagate through a given medium, or for energy to be transferred from one body to another. 2. To allow particles and/or energy to pass through a given material or medium. For example, for light to pass through the atmosphere. 3. To transfer a signal or any form of information, such as data, from one location to another, via wires, optical cables, waveguides, air, or another medium, using electromagnetic waves, acoustic waves, or any other means of communication. 4. To **transmit (3)** data. 5. To broadcast TV signals.

transmit-receive switch A switch that enables a single antenna to be used to transmit and receive simultaneously or alternately. This switch can be manual or automatic, and may be in the form of a circuit, tube, or device. Used, for example, in radar. Its abbreviation is **TR switch**. Also called **duplexing assembly**.

transmit-receive tube A switching tube that enables a transmitter and receiver to use the same antenna. Generally used in radar systems. Its abbreviation is **TR tube**.

transmittance For a body or material which is irradiated, the proportion of the incident radiation transmitted. Put another way, **transmittance** = $(1 - \text{absorptance})$. Also called **transmittancy**, or **transmission (5)**.

transmittancy Same as **transmittance**.

transmitter Its abbreviation is **TX**. 1. A component, device, piece of equipment, system, object, or entity which emits, radiates, or otherwise sends signals. Transmitters which send information-bearing signals are used in many areas, including communications, TV and entertainment, radars, and so on. Also called **sender (1)**. 2. A circuit, device, or system which converts audio, video, or other content into radio waves which are emitted. AM, FM, and AM/FM transmitters are examples. Also called **radio transmitter**, **radio sender**, or **sender (2)**. 3. Same as **telephone transmitter**. 4. That which originates or otherwise emits signals, energy, particles, waves, or the like, which move from one point to another.

transmitter muting In a transceiver, the reduction or silencing of the transmitting output unit while receiving. This may occur manually or automatically.

transmitter-receiver Same as **transceiver**.

transmitter-responder Same as **transponder**.

transmitter synchro In a synchro system, the synchro which transmits a voltage corresponding to the position of its rotor. Also called **synchro transmitter**.

transmitting antenna An antenna which emits electromagnetic radiation. There are many types of transmitting antennas, including those utilized in communications, TV and entertainment, radars, and so on. A single antenna may be used for both transmission and reception.

transmitting device A device, such as a transmitter on a GPS satellite, a beacon transmitter, or a transmitting fax, which emits or sends a signal intended for a receiving device utilizing the same system.

transmitting equipment Equipment, such as radar sets, which incorporate one or more **transmitting devices**.

transmitting station A station, such as a radio or homing station, which incorporates one or more **transmitting devices**.

transmittivity The ratio of the radiation transmitted from one medium to another, to the radiation perpendicularly incident to the surface between the two mediums. Also called **transmissivity**.

transmultiplexer A device or piece of equipment that converts multiplexed signals in one form, such as frequency-division multiplex, to another, such as time-division multiplex, and vice versa. Also spelled **transmultiplexor**.

transmultiplexor Same as **transmultiplexer**.

transonic At, near, or approaching the speed of sound. A transonic interval may encompass from Mach 0.9 to 1.1, Mach 0.5 to 1.5, Mach 0.5 to 0.9, and so on.

transonic speed A speed, such as that of an aircraft, which is **transonic**.

transparency Same as **transparency (1)**.

transparency 1. The quality or state of being **transparent**. Also spelled **transparence**. 2. The extent to which something is **transparent**. 3. An object, such as a photographic slide, which is viewed by allowing light to shine through it.

transparent 1. A body, material, or medium which freely passes radiant energy, such as light, or sound. 2. A body, material, or medium which freely passes one form of radiant energy, such as visible light, but does not pass others, such as infrared light. 3. A body, material, or medium which freely passes one type of particle, such as photons, but does not pass others, such as ions. 4. A body, material, or medium which passes any type of particle. 5. The passing of a signal through a communications network with no changes, or no detectable changes, as occurs, for instance, in **transparent routing**. 6. In computers and communications, a change in hardware and/or software which does not produce