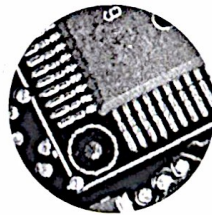
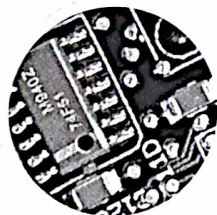
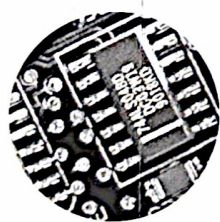


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STEVEN M. KAPLAN

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radio control The use of electromagnetic waves, such as radio waves or infrared waves, for remote control, as opposed to the use of connecting wires. Also spelled **radio-control**.

radio detection 1. The use of radio signals to detect objects. 2. The detection of radio signals emitted or reflected by objects.

radio detection and ranging Same as **radar**.

radio detector A device which serves for **radio detection** (2).

radio device A device, such as an antenna or receiver, which utilizes, operates on, emits, receives, or whose function otherwise involves radio signals. Also called **RF device**.

radio direction finder A radio receiver which incorporates a highly directional antenna, such as a loop antenna, to determine the direction from which a radio signal arrives. Its abbreviation is **RDF**. Also called **direction finder**.

radio direction finding The use of a **radio direction finder** to determine the direction from which a radio signal arrives. Its abbreviation is **RDF**. Also called **direction finding**.

radio direction-finding station Its abbreviation is **RDF station**. A station which utilizes radio direction finders to determine the direction from which radio signals arrive. Such a station may be located, for instance, along a coastline. Also called **direction-finding station**.

radio-electronic Also spelled **radioelectronic**. Pertaining to, characteristic of, or utilizing **radio electronics**.

radio electronics Also spelled **radioelectronics**. 1. The branch of electronics that deals with **radio communications** (1). 2. The branch of electronics that deals with devices and apparatuses, such as radars, which utilize radio waves.

radio element 1. Same as **radioactive element**. 2. Same as **radioisotope**.

radio emission The process of giving off, or sending out electromagnetic waves. For example, such radiation by an antenna.

radio engineering The branch of engineering which deals with all aspects of radio communications, including transmission, reception, and the design, manufacturing, and optimization of the equipment utilized.

radio facsimile Same as **radio fax**.

radio fade-out A rapid and complete loss of electromagnetic skywave signals, due to substantially increased ionization in the ionosphere. This ionization is caused by increased solar noise, which itself is caused by solar storms. It may last from a few minutes to several hours. Also spelled **radio fadeout**. Also called **fadeout**, **Dellinger fadeout**, or **Dellinger effect**.

radio fadeout Same as **radio fade-out**.

radio fax Abbreviation of **radio facsimile**. Fax communications utilizing radio signals.

radio field intensity Same as **radio field strength**.

radio field strength The intensity of an electromagnetic field produced by **radio waves**. Also called **radio field intensity**.

radio fix The determination of an accurate position of a vessel through the use of radio signals, such as those detected by **radio direction finders**.

radio frequency Same as **RF**. Its abbreviation is **radio** (6). Also spelled **radiofrequency**.

radio-frequency amplification Same as **RF amplification**.

radio-frequency amplifier Same as **RF amplifier**.

radio-frequency antenna Same as **RF antenna**.

radio-frequency band Same as **radio spectrum**. Its abbreviation is **RF band**.

radio-frequency carrier Same as **RF carrier**.

radio-frequency channel Same as **RF channel**.

radio-frequency choke Same as **RF choke**.

radio-frequency circuit Same as **RF circuit**.

radio-frequency coil Same as **RF coil**.

radio-frequency communications Same as **RF communications**.

radio-frequency converter Same as **RF converter**.

radio-frequency current Same as **RF current**.

radio-frequency detector Same as **RF detector**.

radio-frequency device Same as **radio device**. Its abbreviation is **RF device**.

radio-frequency diode Same as **RF diode**.

radio-frequency energy Same as **RF energy**.

radio-frequency field Same as **RF field**.

radio-frequency filter Same as **RF filter**.

radio-frequency generator Same as **RF generator**.

radio-frequency harmonic Same as **RF harmonic**.

radio-frequency heating Same as **RF heating**.

radio-frequency IC Same as **RF IC**.

radio-frequency ID Same as **RFID**.

radio-frequency identification Same as **RFID**.

radio-frequency indicator Same as **RF indicator**.

radio-frequency integrated circuit Same as **RF IC**.

radio-frequency interference Same as **RF interference**.

radio-frequency lamp Same as **RF lamp**.

radio-frequency line Same as **RF line**.

radio-frequency link Same as **RF link**.

radio-frequency modulation Same as **RF modulation**.

radio-frequency noise Same as **radio noise**. Its abbreviation is **RF noise**.

radio-frequency oscillator Same as **RF oscillator**.

radio-frequency power Same as **RF power**.

radio-frequency power amplifier Same as **RF power amplifier**.

radio-frequency power supply Same as **RF power supply**.

radio-frequency probe Same as **RF probe**.

radio-frequency pulse Same as **RF pulse**.

radio-frequency radiation Same as **RF energy**. Its abbreviation is **RF radiation**.

radio-frequency range Same as **RF range**.

radio-frequency reception Same as **RF reception**.

radio-frequency resistance Same as **RF resistance**.

radio-frequency response Same as **RF response**.

radio-frequency sensitivity Same as **RF sensitivity**.

radio-frequency sensor Same as **RF sensor**.

radio-frequency shield Same as **RF shield**.

radio-frequency shielding Same as **RF shielding**.

radio-frequency signal Same as **RF signal**.

radio-frequency signal generator Same as **RF signal generator**.

radio-frequency spectrum Same as **radio spectrum**. Its abbreviation is **RF spectrum**.

radio-frequency splitter Same as **RF splitter**.

radio-frequency stage Same as **RF stage**.

radio-frequency system Same as **RF system**.

radio-frequency transformer Same as **RF transformer**.

radio-frequency transistor Same as **RF transistor**.

radio-frequency transmission Same as **RF transmission**.

radio-frequency transmission line Same as **RF line**. Abbreviation of **RF transmission line**.

radio-frequency waves Same as **RF waves**.

radio screen 1. Same as RF shielding (1). 2. Same as RF shielding (2).

radio screening Same as RF shielding.

radio sender Same as radio transmitter.

radio set 1. Same as radio receiver. 2. Same as radio transmitter. 3. Same as radio transceiver.

radio shield Same as RF shield.

radio shielding Same as RF shielding.

radio signal 1. A signal sent by means of electromagnetic waves, such as radio waves or infrared waves, as opposed to utilizing connecting wires. 2. Same as RF signal.

radio source A source, such as the cosmic microwave background, of radio waves.

radio spectrum A range of frequencies, within the electromagnetic spectrum, which is utilized primarily for communications. Usually defined as spanning from approximately 3 kHz to approximately 300 GHz, which corresponds to wavelengths of 100 km to 1 mm, respectively. The radio spectrum has several arbitrarily established intervals, which in order of ascending frequency are: very low frequency, low frequency, medium frequency, high frequency, very high frequency, ultrahigh frequency, superhigh frequency, and extremely high frequency. There are additional terms utilized for classifying ranges within the radio spectrum. For instance, microwave frequencies, depending on the defined interval, usually overlap with ultrahigh frequencies, superhigh frequencies, and extremely high frequencies. Also called **radio-frequency spectrum**, or **RF band**.

radio star A star, such as the sun, known to be a radio source.

radio station 1. A location equipped with one or more receivers and/or transmitters, antennas, or the like, which enable the emission and/or reception of radio signals. Two or more such stations comprise a radio network. 2. A radio station (1) utilized for broadcasting.

radio system 1. A system, such as radio telephony, utilized for radio communications. 2. Same as radio receiver.

radio telegram Same as radiogram (2). Also spelled **radio-telegram**.

radio telegraph Same as radiotelegraph.

radio telegraphy Same as radiotelegraphy.

radio telemetry Telemetry in which connecting wires or cables are not utilized. Instead, signals are usually transmitted via electromagnetic waves, such as radio waves or infrared waves.

radio telephone Same as radiotelephone.

radio telephone communication Same as radiotelephone communication.

radio telephony Also spelled **radiotelephony**. 1. The utilization of modulated radio waves to transmit sounds, such as speech and/or music. Also, a system or technology enabling such communication. 2. Telephonic communications utilizing a radio link, as opposed to connecting wires. Also, a system or technology enabling such communication.

radio telescope An instrument which detects, amplifies, and analyses radio waves originating outside the earth's atmosphere. A radio telescope incorporates one or more parabolic reflectors or other highly directional antennas, very sensitive receivers, and computers which analyze the detected signals, which are then displayed and/or recorded. Since radio wavelengths are much longer than those of visible light, such telescopes tend to be rather large when capable of detecting extremely weak radio sources.

radio teletype A teletype which utilizes radio waves for transmission and/or reception, as opposed to wires. Also spelled **radioteletype**. Its abbreviation is **RTTY**.

radio teletypewriter A teletypewriter which utilizes radio waves for transmission and/or reception, as opposed to wires. Its abbreviation is **RTTY**.

radio therapy Same as radiotherapy.

radio tower 1. A tower upon which one or more antennas are mounted. 2. A tower serving as an antenna.

radio tracking 1. A tracking system which utilizes a radio beam to follow the movements of a scanned object. 2. Same as radar tracking.

radio transceiver A single unit incorporating both a radio transmitter and a radio receiver. Its abbreviation is **radio** (5). Also called **radio set** (3). When components or circuits are shared, also called **transceiver** (1).

radio transmission The emission of radio waves from a radio transmitter, or another radio source.

radio transmitter 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. Its abbreviation is **radio** (4). Also called **radio sender**, **radio set** (2), **transmitter** (2), or **sender** (2).

radio-transparent Also spelled **radiotransparent**. This contrasts with **radiopaque**. 1. Allowing the passage of ionizing radiation, such as X-rays. Said, for instance, of bodies, materials, or mediums. 2. Allowing the passage of radiant energy, such as light. Said, for instance, of bodies, materials, or mediums.

radio tube An electron tube, such as a microwave tube, utilized at radio frequencies.

radio wave propagation The movement of a radio wave through a medium, such as the atmosphere, a vacuum, or a transmission line. Also, the process by which this occurs. Also spelled **radiowave propagation**.

radio waves Electromagnetic waves whose frequencies are within the **radio spectrum**. Also spelled **radiowaves**. Also called **RF waves**, or **Hertzian waves**.

radio wind Same as **rawin**.

radio window An interval of radio frequencies which pass through the atmosphere. This interval varies, in general ranging from approximately 5 MHz to 40 GHz, though under certain conditions it may extend beyond 300 GHz. The lower end of the spectrum is limited by ionospheric reflection of waves back into space, while the higher end is limited by absorption by atmospheric constituents such as water and carbon dioxide.

radioactive 1. Pertaining to, characteristic of, or arising from **radioactivity**. 2. That which exhibits or utilizes **radioactivity**.

radioactive chain Same as **radioactive decay series**.

radioactive chain decay The transformation of a nuclide into another nuclide through **radioactive decay**, followed by further transformations until a stable, or nonradioactive, nuclide results. In such a series, the first member is called the parent, and the last is the end product. For instance, the chemical element uranium undergoes a series of **radioactive decay steps** which eventually ends with a stable isotope of lead. Also called **chain disintegration**, **series decay**, **series disintegration**, or **chain decay**.

radioactive dating Same as **radiometric dating**.

radioactive decay Same as **radioactivity**.

radioactive decay series A series of nuclides which undergo **radioactive chain decay**, which is the transformation of one nuclide into another nuclide through **radioactive decay**, followed by further transformations until a stable, or nonradioactive, nuclide results. Also called **radioactive chain**, **radioactive disintegration series**, **radioactive family**, **radioactive series**, **decay chain**, **disintegration series**, or **disintegration family**.

reverse piezoelectric effect The mechanical deformation of certain crystals or ceramics when exposed to an electric field. Conversely, **direct piezoelectric effect** is the generation of an electric charge by subjecting certain crystals or ceramics to mechanical strain. Both are complementary manifestations of the piezoelectric effect. Also called **inverse piezoelectric effect**, **inverse piezoelectricity**, or **indirect piezoelectricity**.

reverse Polish notation A manner of forming mathematical or logical expressions in which the operators appear after the operands. For example, $(A + B) \times C$, which is in **infix notation**, would appear as $ABC+*$ in reverse Polish notation. Also called **postfix notation**, or **suffix notation**. Its abbreviation is **RPN**.

reverse recovery time The time interval that elapses after switching between forward bias and reverse bias, and the reverse current reaching saturation.

reverse resistance The resistance offered to the flow of current in the reverse direction.

reverse solidus In most computer operating systems, a character which serves to separate folders and directories in file pathnames, as seen, for instance, in: `C:\Documents\Reminders\Today.xyz`. This character has a place on the keyboard, and is shown here between brackets: `[ \ ]`. Also known as **backslash**.

reverse video On a computer display, the exchanging of the light and dark areas of the screen. That which is normally light appears as dark, and vice versa. When highlighting, for instance, the selected area is displayed as reverse video. Also called **inverse video**.

reverse voltage 1. The voltage developed in an inductive circuit through which AC flows. The polarity of this voltage is at all times the opposite of that of the applied voltage. Also known as **back electromotive force**, **back voltage**, or **counter electromotive force**. 2. A voltage whose polarity is at all times the opposite of another voltage. 3. For an electrical or electronic component or device, the voltage in the direction in which there is the greater resistance to the flow of current. Also called **inverse voltage** (1).

reversible actions Actions which can be undone, or which otherwise allow to return to a former state. In computer applications, for instance, examples include undo commands and dialog boxes reminding a user that a document will be closed without saving it.

reversible counter A counter which can count both upwards and downwards. It has, for instance, both an adding input and a subtracting input, thus giving it the ability to count in both directions. Also called **bi-directional counter**, **forward-backward counter**, or **up-down counter**.

reversing motor A motor whose direction of rotation can be reversed. Used, for instance, in certain electromechanical tools such as drills.

reversing switch A switch that reverses a direction, position, order, polarity, phase, or the like. For example, a switch inside of a transceiver which changes between transmission and reception modes, or a polarity switch.

revert 1. To return to a former condition or state. 2. To return to a former version of a document. For example, to revert to the latest saved version.

revision level Same as **release version**.

revolution Its abbreviation is **rev**. 1. Rotational motion about an axis or body. Also, a single complete rotation. For example, 360° represents a complete revolution around a circle. 2. Orbital motion about a point or body. Also, a single complete rotation. For instance, a revolution of the earth about the sun.

revolutions per minute A unit of angular velocity indicating the number of 360° rotations completed per minute. This is

equal to about 0.1047198 radian per second. Its abbreviation is **rpm**.

revolutions per second A unit of angular velocity indicating the number of 360° rotations completed per second. This is equal to about 6.2831853 radians per second. Its abbreviation is **rps**.

revolving field Same as **rotating field**.

revolving magnetic field Same as **rotating magnetic field**.

REW Abbreviation of **rewind**.

rewind Its abbreviation is **REW**. 1. To rapidly wind a tape in the direction opposite of playback. For instance, that in a VHS cassette or digital audio tape cartridge. The term may also be used to refer to moving backwards rapidly within the content of an optical disc, such as a DVD. 2. The mechanism utilized to **rewind** (1). 3. A command or function which **rewinds** (1). 4. To wind again.

rewind button A button which activates a **rewind** (1) function.

rewritable Also spelled **re-writable**. Its abbreviation is **RW**. 1. The ability to be erased and written or record upon multiple times. Said, for instance, of optical discs, chip cards, magnetic disks, magnetic tapes, or the like. 2. A specific medium, such as a DVD disc, which is **rewritable** (1).

rewritable CD Its abbreviation is **RW CD**. 1. A CD technology which allows discs to be rewritten many times. A laser records the desired content, forming the equivalent of pits on the recordable surface by altering the reflectivity of a dye layer. When such a disc is placed in a player, its laser pickup reads the patterns as if they had been permanently stamped into its metallic surface. Also called **CD-RW**, or **CD-rewritable**. 2. A CD disc which can be rewritten many times. Also called **CD rewritable disc**.

rewritable disc Also spelled **re-writable disc**. Its abbreviation is **RW disc**. Also called **rewritable optical disc**. 1. A technology which allows optical discs, such as DVDs, to be rewritten many times. 2. An optical disc which can be rewritten many times.

rewritable DVD Its abbreviation is **RW DVD**. 1. A DVD technology which allows discs to be rewritten many times. To record, a high-intensity laser followed by a medium-intensity laser anneals the crystals in the recording layer, changing its reflectivity. A low-intensity laser in the DVD player reads the recorded information. Also called **DVD-rewritable**, or **DVD-E**. 2. A DVD disc which can be rewritten many times. Also called **DVD rewritable disc**.

rewritable optical disc Same as **rewritable disc**. Also spelled **re-writable optical disc**. Its abbreviation is **RW optical disc**.

rewrite To erase and write or record upon again. Said for instance, of RAM, flash cards, optical discs, hard disks, magnetic tape, and the like. Also spelled **re-write**.

Rf Chemical symbol for **rutherfordium**.

RF Abbreviation of **radio frequency**. Also called **RF frequency**, or **radio** (6). 1. Within the electromagnetic spectrum, a frequency or interval of frequencies utilized for communications. Also called **RF range** (1). 2. A specific interval of RF frequencies, especially the **radio spectrum**. Also called **RF range** (2). 3. A specific RF (1), such as that of a carrier wave or VHF.

RF amplification Abbreviation of **radio-frequency amplification**. The use of an **RF amplifier**. Also, the resulting amplification.

RF amplifier Abbreviation of **radio-frequency amplifier**. A circuit or device utilized to amplify RF signals.

RF antenna Abbreviation of **radio-frequency antenna**. An antenna designed for transmitting and/or receiving radio frequencies. There are many examples, including bowtie, coaxial, dipole, dish, helical, horn, loop, and Yagi antennas.