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WILEY ELECTRICAL AND ELECTRONICS ENGINEERING DICTIONARY

Steven M. Kaplan
Lexicographer



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amplitude-modulation transmitter Same as **AM transmitter**.

amplitude-modulation tuner Same as **AM tuner**.

amplitude modulator A circuit or device which effects **amplitude modulation**.

amplitude noise In radars, variations in the amplitude of the signal reflected by the scanned object. This reduces the accuracy of the radar device.

amplitude peak In a wave or other periodic phenomenon, the maximum absolute value of the displacement with respect to zero. Also known as **peak amplitude**.

amplitude range The maximum combined range in amplitude of a signal within a specified interval of frequencies. For example, a high-fidelity amplifier may have a frequency response of 10 Hz to 60 kHz, ± 0.5 decibels.

amplitude resonance In a resonant system, the frequency at which maximum resonance occurs.

amplitude response In a circuit or device, the variation of the output signal to the input signal over a given frequency interval.

amplitude selector A circuit which produces a fixed output pulse, but only when the input pulse lies between pre-established limits of amplitude. Also called **pulse-height selector**, **pulse-amplitude selector**, or **differential pulse-height discriminator**.

amplitude-separation circuit Same as **amplitude separator (3)**.

amplitude separator 1. A circuit which separates any portion of a waveform above or below predetermined values. 2. A circuit which separates any portion of a waveform between predetermined values. 3. In a TV, a circuit which separates the control signals from the video signals. Also called **amplitude-separation circuit**.

amplitude shift keying Data transmission accomplished by varying the amplitude of a carrier wave. Switching between amplitude levels provides the keying. Its abbreviation is **ASK**.

amplitude-suppression ratio In the testing of an FM receiver which is receiving both amplitude-modulated and frequency-modulated signals, the ratio of the amplitudes between the input and output.

amplitude-versus-frequency-distortion In an amplifier, distortion that occurs when some frequencies are attenuated or amplified more than others.

AMPS Acronym for **advanced mobile phone system**.

AMR Abbreviation of **Audio/Modem Riser**.

AMS Abbreviation of **aeronautical mobile service**.

amu Abbreviation of **atomic mass unit**.

AN radio range Same as **AN range**.

AN range A radio range that transmits two coded signals via directional antennas. When an aircraft is on one of the four fixed courses, a continuous tone is heard. As the bearing deviates off course, the pilot will increasingly hear the Morse-code signal for A or N. Also known as **AN radio range**.

anacoustic zone The region above an altitude of about 160 kilometers from the earth's surface, where the distance between air molecules is greater than the wavelength of sound, thus sound waves can not be propagated. This zone extends well beyond the planet into outer space. Also called **zone of silence (1)**.

analog Also spelled **analogue**. 1. Of, pertaining to, or consisting of a signal or parameter which is continuously and infinitely variable. The characteristics, such as an amplitude or frequency, of an analog signal vary in a continuous and infinitely variable manner, while a **digital** signal has a range that is divided into a finite number of discrete steps. Al-

though the analog coding of information, as opposed to digital, can better match a real-world source such as music or a panoramic scene, steps such as recording, copying, transmitting, and reproducing introduce greater and greater amounts of noise, distortion, and other interference. This is not a problem when recorded, processed, transmitted, and so on, digitally. 2. A variable whose magnitude closely or exactly follows another variable. For example, a voltage which fluctuates proportionally to a voice. Transducers, such as microphones, speakers, or photoelectric cells, make the appropriate conversions.

analog adder A circuit or device whose output is the sum of two or more analog inputs. For example, an output voltage which is the sum of two input voltages.

analog camera A camera which records and stores images in analog form. An example is a traditional film camera.

analog cellular communications Cellular communications utilizing analog, as opposed to digital, technology. Also called **analog cellular telephony**.

analog cellular telephone A cellular telephone utilized for **analog cellular communications**.

analog cellular telephony Same as **analog cellular communications**.

analog channel A channel with defined limits, within which the transmitted information can have any continuously variable value. For example, a voice channel.

analog circuit An electronic circuit which maintains a continuous relationship between its input and output when acting on a signal.

analog communications Communications employing a signal that, within the defined limits, can have any continuously variable value. For example, an AM radio transmission, or analog telephonic service.

analog comparator A circuit or device whose digital output depends on a comparison of its analog inputs. For example, a digital output of 1 or 0 if the sum of two analog input voltages is positive or negative, respectively.

analog computer A computer which processes infinitely variable signals, such as a voltage. This contrasts with a **digital computer**, which deals only with signals in a discrete form, such as binary numbers.

analog control Control of a component, device, or system, by analog signals such as frequency or movement.

analog control device A device which utilizes **analog control**. An example is a computer mouse.

analog data 1. Data which is represented by a continuous and infinitely variable value. For example, that of a varying voltage. 2. Data which is displayed on a continuous scale, such as that seen on a VU meter.

analog decoding The conversion of a digital signal into an analog signal.

analog delay line An analog device which introduces a time delay in a signal. An example is a mirror arrangement which varies the path of a laser signal.

analog device A device which represents values by quantifying a physical magnitude that can assume any value within a given range.

analog display 1. A video display which accepts analog signals from the computer. The display adapter carries out the digital to analog conversion. Also called **analog monitor**. 2. A display, such as that of an instrument, with an analog indicator. An example is a VU meter.

analog divider A circuit or device whose output is the quotient of two analog inputs.

analog domain All that is in **analog** form. Most everything in the real world is in analog form. An analog-to-digital converter transforms an analog input into a digital output.