

Glossary

- ACCESS TIME.** The time required to call a number from storage and make it available to the arithmetic section.
- ALTERNATION.** Half of a complete cycle.
- AMPLIFIER, CLASS A.** An amplifier in which the swing of the input signal is always on the linear portion of the characteristic curves of the amplifying device.
- ANODE.** A positive electrode (the receiver of electrons).
- ASTABLE MULTIVIBRATOR.** A multivibrator that can function in either of two semistable states, switching rapidly from one to the other (referred to as free running).
- BINARY COUPLED TRIGGER.** A trigger with a common input so arranged that two successive negative pulses will turn the trigger on, then off.
- BINARY NUMBER SYSTEM.** A number system using the base two. There are only two symbols; one or zero (ON or OFF).
- BIT.** The name for a binary digit (one or zero). It may be represented by magnetized spots on tape or drum, magnetized cores, or a particular state of an electron tube.
- CARRIER.** A conveyor of charges through a semiconductor. In transistors, two types of carriers of charges are present: holes and electrons.
- CHARACTER.** A decimal digit 0 to 9, a letter A to Z, or a special symbol.
- CHARACTERISTIC IMPEDANCE (Z_0).** The ratio of the voltage to the current at every point along a transmission line on which there are no standing waves.
- CLAMPING CIRCUIT.** A circuit that maintains either or both amplitude extremities of a waveform at a certain level or potential.
- CLOCK.** A source of timed pulses used to sequence events in the machine (similar to a timing index on card machines).
- CLOSED RING.** A ring of triggers in which the last trigger feeds the first trigger to allow the ring to operate continuously.
- COMMON-BASE (CB) AMPLIFIER.** A transistor amplifier in which the base element is common to the input and the output circuit. This configuration is comparable to the grounded-grid triode electron tube circuit.
- COMMON-COLLECTOR (CC) AMPLIFIER.** A transistor amplifier in which the collector element is common to the input and the output circuit. This configuration is comparable to the electron tube cathode follower circuit.
- COMMON-EMITTER (CE) AMPLIFIER.** A transistor amplifier in which the emitter element is common to the input and the output circuit. This configuration is comparable to the conventional electron tube amplifier circuit.
- COMPLEMENTARY SYMMETRY CIRCUIT.** An arrangement of PNP-type and NPN-type transistors that provides push-pull operation from one input signal.
- CONFIGURATION.** The relative arrangement of parts (or components) in a circuit.
- COUPLING.** The association of two circuits in such a way that energy may be transferred from one to the other.
- CROSSTALK.** Distortion introduced from one circuit to another circuit.
- CUTOFF FREQUENCY.** The frequency at which the gain of an amplifier falls below .707 times the maximum gain.
- CYCLE.** One complete positive and one complete negative alternation of a current or voltage.
- DAMPED WAVES.** Waves which exponentially decrease in amplitude.
- DIFFERENTIATING CIRCUIT.** A circuit that produces an output voltage proportional to the rate of change of the input voltage.
- DISTORTION.** The production of an output waveform which is not a true reproduction of the input waveform. Distortion may consist of irregularities in amplitude, frequency, or phase.
- DOT FUNCTIONS.** Under certain conditions, outputs of similar levels are tied together and share a common load. This condition provides a second level of logic in some circuits within one block of delay.
- DRUM.** A constantly rotating cylinder with a magnetic surface on which data is stored by magnetizing spots on this surface.
- ERASE.** To destroy the information stored on the surface of a magnetic tape, magnetic drum, or cathode ray tube to make this storage space available for new information.
- FALL TIME.** The time when the amplitude of a pulse decreases from 90 percent to 10 percent of its maximum value.
- FORWARD BIAS.** In a transistor, an external potential applied to a PN junction so that the depletion region is narrowed and relatively high current flows through the junction.
- GATING CIRCUIT.** A circuit operating as a switch, making use of a short or open circuit to apply or eliminate a signal.
- HARMONIC.** An integral multiple of a fundamental frequency. (The second harmonic is twice the frequency of the fundamental or first harmonic.)
- HEAD.** A writing and sensing device containing coils around a laminated core of high permeability material.
- HOLE.** A mobile deficiency, in the atomic structure of a semiconductor material, that acts as a positive charge.
- IMPEDANCE (Z).** The total opposition offered to the flow of an alternating current. It may consist of any combination of resistance, inductive reactance, and capacitive reactance.
- IMPULSE.** Any force acting over a comparatively short period of time, such as a momentary rise in voltage.
- IN PHASE.** The condition that exists when two waves of the same frequency pass through their maximum and minimum values of like polarity at the same instant.
- INPUT-OUTPUT.** Unit(s) responsible for sending information into a computer and for receiving processed information from a computer.
- INSTANTANEOUS VALUE.** The magnitude, at any particular instant, of a value that is continually varying with respect to time.
- INTEGRATOR CIRCUIT.** One which sums up and produces an output voltage substantially in proportion to the frequency and amplitude of the input pulse.
- KILO (K).** A prefix meaning 1,000.
- KILOCYCLE (KC).** One thousand cycles; conversationally used to indicate 1,000 cycles per second.
- LATCH.** A flip-flop device composed of two or more circuits. The output of a latch is looped or latched back to the input to hold the device in one of its two possible states. The latch is turned off by breaking this closed feedback loop at any point.
- LOAD.** The impedance to which energy is being supplied.
- LOGIC.** The process of determining, by deductive reasoning, the means for obtaining a desired result from a given set of conditions.
- MAJORITY CARRIERS.** The holes or free electrons in P-type or N-type semiconductors respectively.
- MINORITY CARRIERS.** The holes or excess electrons found in the N-type or P-type semiconductors respectively.
- MEMORY.** A term used to denote any internal storage devices of a machine.
- OSCILLATOR.** A circuit capable of converting direct current into alternating current of a frequency determined by the constants of the circuit.