EXHIBIT B

The Illustrated Dictionary of Electronics

Seventh Edition

Stan Gibilisco
Editor-in-Chief

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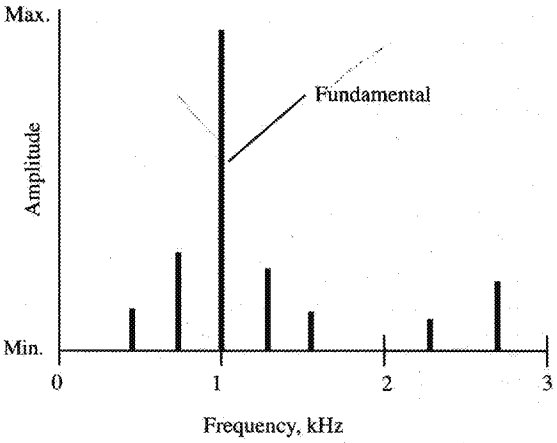


inharmonic distortion

inherent capacitance; a capacitor has inherent inductance.

inherited error In an extended calculation, an error carried through from one of the earlier steps.

inhibit **1.** In digital computer and logic operations, to prevent an action or block the input of data by means of a pulse. **2.** To delay an action or process.

inhibit gate A pulse-actuated gate circuit that acts as an INHIBITOR.

inhibitor **1.** A device or circuit that produces a pulse or signal that prevents an action, or that blocks data input. **2.** An additive, such as an organic liquid, that delays the hardening of a mixture, such as an encapsulating compound.

inhibit pulse In a computer, a drive pulse that prevents other pulses from changing the direction of magnetization in the cells of a magnetic core memory.

inhibit signal In digital computer and logic operations, the signal that causes an INHIBIT action.

initial drain **1.** The current supplied by a battery or cell at its rated voltage. **2.** The current delivered by a rechargeable battery or cell when it is put to use immediately after receiving a full charge.

initial failure The first failure occurring in the operation of a circuit or device.

initial instructions A resident computer routine used to aid program loading. Also called *initial order.*

initial ionizing event In the operation of a radioactivity counter, the first event that starts the chain of similar events constituting the count.

initialization A computer program instruction that sets the value of a variable to zero.

initial permeability Permeability in the low magnetization region of a material.

initial time delay Abbreviation, ITD. In acous-

direct sound wave is first heard, and the instant the first echoes (reflected sound waves) arrive.

initiate See TRIGGER.

injection **1.** Introducing a signal into a circuit or device. **2.** Introducing charge carriers (electrons or holes) into a semiconductor.

injector **1.** An element or electrode for INJECTION. **2.** A device or circuit that injects a signal into another device or circuit.

injector electrode See INJECTOR, **1**.

ink bleed In the printing of matter for optical character recognition, ink flow around the characters, often making them unrecognizable to the reader.

inkjet galvanometer A galvanometer whose movement controls the pressure of a jet of ink for making a recording on a paper chart. Also see LIQUID-JET OSCILLOGRAPH.

inkjet printer A printer commonly used with personal computers, in which images are created by jets of ink sprayed directly onto the paper. Noted for low operating noise level, high image resolution, and excellent color-reproduction capability.

ink-mist recorder A graphic recorder in which the line is traced by a mist of ink.

ink recorder A graphic recorder using a pen-and-ink stylus.

ink squeeze-out In the printing of matter for optical character recognition, the squeezing of ink from a character's center.

ink-vapor recorder See INK-MIST RECORDER.

in-lb Abbreviation of INCH-POUND.

inlead The part of an electrode that passes through the external shell or case of a component.

inline procedure The main portion of a COBOL computer program, responsible for the primary operations.

inline processing The action peculiar to a system that processes data almost immediately upon receipt (i.e., one that need not be capable of storing a lot of unprocessed data).

inline readout In digital computer operations, a readout device that displays digits side-by-side horizontally.

inline subroutine A subroutine that must be written each time it is needed, as compared with one that can be accessed by a program branch.

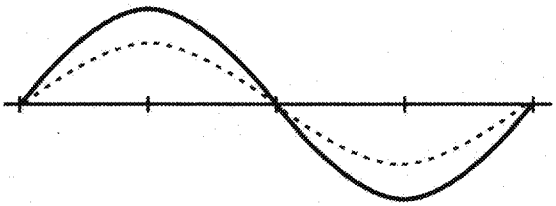
inline tuning Tuning of all the stages of a channel, such as an intermediate-frequency amplifier, to the same frequency.

inner conductor The inner wire or rod of a coaxial cable or coaxial tank. It generally carries the signal, and is isolated from the surrounding environment by the grounded OUTER CONDUCTOR.

inorganic Consisting of materials other than carbon compounds; therefore, it is not related to living things.

inorganic electrolyte Any electrolyte that is completely inorganic: containing no compounds of carbon.

in phase The condition in which alternating or



in phase

with each other at all points. Compare OUT-OF-PHASE.

in-phase carrier See I-PHASE CARRIER.

in-phase current Resistive current in an ac circuit (i.e., current in phase with voltage). Compare QUADRATURE CURRENT.

in-phase feedback Feedback in phase with a main signal. Also called POSITIVE FEEDBACK and REGENERATION.

in-phase voltage A voltage that is in phase with another (reference) voltage.

in-plant system An automatic data communications system within a specific building or complex.

input **1.** Energy or information delivered or transferred to a circuit or device. **2.** The terminals of a device or circuit to which energy or information is applied. **3.** To deliver or transfer energy or information to a circuit or device (as to input data from a computer peripheral to memory).

input admittance Symbol, Y_i. The internal admittance of a circuit or device, as "seen" from the input terminals; the reciprocal of input impedance. Compare OUTPUT ADMITTANCE.

input area In a computer memory, an area set aside for data input from a source other than a program.

input bias current The input bias required by an operational amplifier.

input capacitance Symbol, C_i. **1.** The internal capacitance of a circuit or device, as "seen" from the input terminals. Compare OUTPUT CAPACITANCE. **2.** The grid-cathode capacitance of a vacuum tube.

input capacitor **1.** In a capacitance-coupled circuit, the input coupling capacitor. Compare OUTPUT CAPACITOR. **2.** The first capacitor in a capacitor-input filter (i.e., that capacitor electrically nearest the rectifier output electrode).

input choke The first choke in a choke-input filter (i.e., that choke electrically nearest the rectifier output electrode, when no preceding capacitor is used).

input circuit The circuit or subcircuit constituting the input section of a network or device. Compare OUTPUT CIRCUIT.

input clamp current The current from an input when the input is in a state below ground potential. A test for the input clamp diode.

input conductance Symbol, G_i. The internal conductance of a circuit or device, as "seen" from the input terminals; it is the reciprocal of INPUT RESISTANCE. Compare OUTPUT CONDUCTANCE.

input coupling capacitor See INPUT CAPACITOR, **1**.

input coupling transformer See INPUT TRANSFORMER.

input current Symbol, I_i. **1.** The current delivered to a circuit or device. **2.** Current flowing in the input leg or electrode of a circuit or device.

input device **1.** A device, such as an input transformer, that couples energy or information to a circuit or device. Compare OUTPUT DEVICE. **2.** A device through which another device receives data.

input equipment Collectively, input devices used with a computer.

input error voltage In an operational amplifier, the error voltage at the input terminals when a feedback loop operates around the amplifier.

input extender A diode network that provides increased fan-in for a logic circuit. Also see FAN-IN, **1**.

input gap In a velocity-modulated tube, the gap in which the electron stream is initially modulated.

input guarding A method of eliminating stray coupling among inputs in an integrated circuit. A shield is provided at the input; it is driven to follow along with the input voltage. This ensures low loss and minimum errors resulting from unwanted coupling.

input impedance Symbol, Z_i. The internal impedance of a circuit or device, as "seen" from the input terminals. Compare OUTPUT IMPEDANCE.

input limited The processing time limitation imposed by an input unit on the speed of a program run.

input noise current At the input of an integrated circuit, the root-mean-square (rms) or peak-to-peak (pk-pk) noise current existing within a specified range of frequencies.

input noise current density The noise current, usually expressed as a root-mean-square (rms) value, in a band 1 Hz wide around a given frequency.

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input noise voltage density The noise voltage, usually expressed as a root-mean-square (rms) value, in a band 1 Hz wide around a given frequency.

input offset current In an operational amplifier, the difference between the currents going to the input terminals when the output is zero.

input offset voltage In an operational amplifier, the potential that has to be applied between the input terminals for a zero output voltage.

input/output Abbreviation, I/O. **1.** Data transmitted to, or received from, a computer. **2.** A ter-

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