

Active Component:	An electronic component such as an IC, transistor, or diode.
Active Trim:	The trimming of a circuit element (resistor) to obtain a specific functional output.
Alumina:	Aluminum Oxide. The primary compound in Alumina (ceramic) substrates.
Analog Circuit:	A circuit, comprised of linear components, that provides a linear function.
Bond:	An electrical interconnection, i.e., wire bond.
Burn-in:	Subjecting a part to electrical bias or load at elevated temperature for a specific period of time in order to promote failure of marginal devices.
Ceramic Package:	Hybrid package enclosure consisting of an inorganic, nonmetallic material such as alumina.
Cermet Package:	A package constructed with a substrate base, a glass attached frame, and a metalized ring for lid attachment; a low cost method for achieving hermeticity.
Chip:	The uncased and normally leadless form of an electronic component.
Chip-and-wire:	A hybrid assembly technology employing face-up wire bonded chip devices.
Clean room:	A manufacturing area where the air is filtered to remove dust particles.
Cofired Ceramic Package:	Process of firing conductor and ceramic package elements at the same time to yield a package with no glass feedthroughs for leads.
Conformal Coating:	A thin nonconductive coating, such as plastic, applied to a circuit for protection.
Constant Acceleration (Centrifuge):	The testing of the integrity of the attachment of components of a hybrid by spinning the unit at high speed to impart high g force on to the components.
Die:	Uncased component obtained from a semiconductor wafer (see chip).
Digital Circuit:	A circuit design consisting primarily of digital ICs.
Encapsulate:	Sealing or covering an element or circuit for environmental protection.
Eutectic Die Attach:	A method of die attach where an intermetallic bond is formed between the back of the die and the circuit pad metalization to achieve an electrical interconnect, without the use of solder or epoxy.
Failure Analysis:	The analysis of a circuit to determine the reason for failure.
Film:	Layer or coating of thin or thick material used to form various elements, interconnections, or insulation.
Fire:	The act of heating a thick-film circuit so that the film will develop its final properties.
Flat Pack:	A microcircuit package having its leads extending from the sides and parallel to the base, often used to achieve surface mountability.
Flip Chip:	A method of mounting chips (ICs) without using wire bonds.
Glassivation:	A method of semiconductor passivation by coating the element with a pyrolytic glass deposition.
Header:	The base of a hybrid package that holds the leads.
Hermetic:	Sealed so as to be gas-tight.
Hybrid Microcircuit:	A microcircuit on an insulating substrate that consists of an assembly of various components and technologies including screened resistors, capacitors, and various integrated circuits.

Ink:	Synonymous with “composition” and “paste” when relating to screenable thick-film materials.
Integrated Circuit:	A multiple of transistors interconnected on a semiconductor.
Laser Trim:	Adjustment of a film resistor (increasing value) using a laser to remove material.
Layer:	One of several films in a multiple fire structure on a substrate.
Layout:	A drawing depicting components and interconnection, used to generate artwork or masks for substrate metalization.
LCC:	Leadless Chip Carrier, a package type.
Lead Frames:	Metallic pins attached to the edge of a substrate to electrically interconnect the hybrid to the next level of assembly.
Leak Test:	A package integrity check used to evaluate the hermeticity level; i.e. fine leak, gross leak.
Life Test:	A test of a component under load over the rated life of the device, usually performed at elevated temperature.
Metalization:	A film pattern of conductive material deposited on a substrate.
MCM:	Multi-Chip Module. A hybrid microcircuit comprised of mostly digital circuitry.
Microcircuit:	A small circuit (hybrid or monolithic) having a relatively high circuit density, which is considered as a single part with a single substrate to perform an electronic circuit function. (This excludes PC boards and modules composed exclusively of discrete electronic parts.)
Package:	The container for an electronic component(s) with terminals to provide electrical access.
Passivation:	An insulating layer directly over a circuit or element to protect the surface from contaminants such as moisture or loose particles.
Passive Component:	Elements such as resistors, capacitors, and inductors.
Paste:	See Ink.
PDA:	Percent Defect Allowable. Maximum yield loss allowed before the complete lot of parts become suspect.
Plug-in Package:	A microcircuit package with leads on one surface so that the part can be “plugged in” to a socket or through-hole board.
Potting:	Encapsulation of a circuit using a polymeric material.
Power Dissipation:	Power expended in the form of heat from within a device.
Power Factor:	The ratio of actual power to perceived power in an AC signal.
Preform:	Squares of epoxy or solder punched out of a sheet and used in manufacturing.
Reflow Soldering:	Solder placement such as a screening operation that is subsequently followed by a reflow operation.
Schematic:	Diagram of an electronic circuit showing all components and interconnect.



Screen:	The application of a circuit pattern onto a substrate using screen printing techniques.
Screen:	The subjection of a device to various environmental conditions and tests, to eliminate marginal devices.
Semiconductor:	The material used as substrates for devices such as transistors, diodes, and integrated circuits.
Snapstrate:	A scribed substrate that enables processing of multiple circuits that are latter separated (or snapped).
Standoff:	An insulative material affixed to the bottom of a package to give clearance or to prevent electrical shorting.
Substrate:	The supporting material upon which the elements of a hybrid are deposited or attached.
Temperature Cycling:	An environmental test where parts are subjected to a series of cycles alternating between low and high temperature extremes.
Temperature Tracking:	The degree to which similar elements on the same circuit exhibit change of a parameter with respect to temperature change.
Thermal Analysis:	A calculation to estimate the temperature rise of various elements in a microcircuit.
Thermal Shock:	Same as temperature cycling except that the rate of change of temperature is usually much more rapid.
Thick Film:	A film deposited by screen printing processes and fired at high temperature.
Thin Film:	A film deposited onto a substrate by deposition process such as sputtering or vacuum evaporation.
Trimming:	See Active Trim, Laser Trim.
Visual:	The process of visual inspection of a hybrid assembly for defects.
Yield:	The ratio of usable units at the end of a manufacturing process to the number of parts initially submitted.