

GLOSSARY OF TECHNICAL TERMS

This glossary of technical terms contains terms used in this document as they relate to our business. As such, these terms and their meanings may not always correspond to standard industry meaning or usage of these terms.

“2D integration”	the integration method of mounting all chips and passive components horizontally on the surface of the substrate
“2.5D integration”	a semiconductor packaging technology that serves as an intermediary between traditional 2D integration and more advanced 3D integration
“3D integration”	a three-dimensional IC built by vertically stacking different chips or wafers together into a single package
“4A per contact”	a single contact point that can stably transmit a maximum current of 4 amperes under normal operating conditions
“5G”	5th generation mobile communication technology, characterized by high data rate, low latency, and massive connectivity
“AI”	artificial intelligence
“complementary metal-oxide semiconductor image sensor”	a type of semiconductor device that converts optical signals into electronic signals, enabling the capture of digital images or video
“coaxial probe”	a probe designed for high-frequency signal integrity, featuring a coaxial construction (a shielded center conductor) to provide controlled impedance. Its primary function is to enable precise, low-noise measurement of radio frequency or high-speed digital signals by preventing signal degradation and external interference
“coaxial socket”	a precision product specifically designed for high-speed transmission and high-frequency testing, which can support both engineering testing and mass production
“contact force”	the force applied when a probe comes into contact with a chip pad or pin during semiconductor testing
“CP probe”	chip probing probe, a precision probe used in the chip probing process that achieves electrical connection by contacting the die on the wafer to perform functionality and performance testing
“dB”	decibel, a logarithmic unit of sound intensity

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“deep-draw stamping”	a precision metal forming process that stretches metal sheets into complex 3D structures with large depth using stamping equipment
“die”	a single chip unit obtained after dicing a wafer, which is the basic functional unit of a semiconductor device, containing a complete circuit structure
“EMI shielding cover”	electromagnetic interference shielding cover, metal shielding devices used to block electromagnetic interference that reduce electromagnetic interference between internal components of electronic equipment and improve signal transmission stability
“ERP software”	enterprise resource planning software, an information system that integrates internal resource management of an enterprise
“fine pitch”	a characteristic describing the small spacing between pins or pads of a semiconductor chip
“FT”	final test, a back-end testing process in semiconductor manufacturing that is conducted after chip packaging is completed, testing the final functionality and reliability of the chip to ensure the product meets delivery standards
“FT probe”	final test probe, a specialized electrical connector used during the final testing stage of semiconductor manufacturing, with its prime role being to create a temporary, reliable electrical connection between the leads or pads of the packaged device and the test equipment, which then verifies the device’s full functionality, performance, and electrical characteristics before it is shipped to customers
“gearbox”	a core component in mechanical transmission systems that realizes the conversion of speed and torque through gear set configuration
“gear train”	a transmission system composed of multiple meshing gears, which is used to transmit power, change the direction of motion, or adjust speed
“GFA”	gross floor area
“GHz”	gigahertz, 1,000,000,000 periods per second
“GPU”	graphics processing unit
“HDI”	high-density interconnect, a technology that realizes high-density wiring in integrated circuit substrates

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“IATF”	International Automotive Task Force, an organization composed of major automobile manufacturers and associations, responsible for formulating and maintaining the automotive industry quality management standard IATF 16949, which is based on ISO 9001 and adds specific requirements for the automotive industry
“IC”	integrated circuit, a compact semiconductor device that contains multiple interconnected electronic components, such as transistors, resistors, and capacitors, fabricated onto a single chip
“IC substrate”	integrated circuit substrate, a key component that carries chips and realizes electrical connection between chips and external circuits
“impedance”	the total opposition to alternating current in a circuit, determined by resistance, inductance, and capacitance, which is an important parameter for measuring the signal transmission characteristics of a circuit
“insertion loss”	the power attenuation of a signal when passing through a connector, cable, or other components, usually expressed in dB
“IoT”	internet of things
“IP67”	one of the Ingress Protection ratings, the first digit, “6,” means complete protection against dust and objects greater than 1mm; and the second digit, “7,” means protection against a short period of immersion of the device in water under up to 1m pressure
“ISO”	International Organization for Standardization, a series of international standards, including quality management and quality assurance standards published by the Universal Certification Services Co., Ltd., a non-government organization for assessing the quality system of business organizations
“MEMS”	micro-electro-mechanical system, a micro-system that integrates micro-mechanical structures, micro-sensors, micro-actuators, and signal processing circuits
“MEMS acoustic component”	a miniature electronic component built using semiconductor manufacturing techniques. The term “acoustic” refers to its function: converting mechanical sound or vibration waves into electrical signals or converting electrical signals back into sound or vibration

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“MEMS micro- and nanofabrication component”	supporting component for MEMS devices produced using micro- and nanofabrication technologies, including structural parts and connectors, used to support the functional realization of MEMS devices
“micro- and nanofabrication”	a general term for technologies used to manufacture microstructures and components with characteristic feature sizes of approximately 1 nanometer to 1,000 micrometers, covering various precision processing processes
“micro-injection molding”	a precision manufacturing process that injects materials into micro-molds to form small and complex 3D structures
“micro-precision stamping”	a high-precision metal forming process that processes metal sheets into small and complex structural parts using precision molds and equipment, ensuring high dimensional accuracy and consistency
“miniature transmission system”	a power transmission and motion control system used in small equipment, which usually includes components such as gears and motors, and is characterized by small size and high precision
“OEM”	original equipment manufacturer, a manufacturer that provides customized product manufacturing services for brand owners, producing products in accordance with customer design requirements
“pad”	a metal area on the surface of a semiconductor chip used for electrical connection, which serves as an interface for signal transmission between the chip and external circuits
“PCB”	printed circuit board, a structure for assembling electronic components and their connections into a unified circuit that allows electrical current to pass between components
“pin”	a small, slender component, usually cylindrical or rod-shaped, made of materials like metal or ceramic, mainly serving for electrical connection, mechanical positioning or fastening, or structural support of small mechanisms
“planarity”	the degree to which a surface or structure is flat and even, without significant warping, curvature, or irregularities
“precision metal forming”	a general term for technologies that process metal materials into high-precision and complex structural parts through processes such as stamping and stretching
“precision structural component”	a structural part with high-precision dimensions and complex geometric shapes

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“probe card”	an interface between an electronic test system and a semiconductor wafer that is typically mechanically docked to a prober and electrically connected to a tester
“QFN”	Quad Flat No-Lead, a semiconductor chip packaging form characterized by no external leads and small packaging size
“R&D”	research and development
“semiconductor test probe”	a precision probe used for semiconductor testing that realizes electrical connection during the chip testing process, transmits test signals, and ensures test accuracy
“SNR”	signal-to-noise ratio, the ratio of the intensity of a useful signal to the intensity of background noise
“SoC”	system on chip, a semiconductor device that integrates multiple functional modules, such as processors, memory, and interfaces, on a single chip to realize complete system functions
“socket”	a precision interface component designed to hold, position, and establish electrical contact with another part
“SOP”	standard operating procedure
“sq.m.”	square meters
“substrate”	the foundational materials upon which semiconductor devices, such as integrated circuits, are built that serve as the platform for the deposition and integration of various semiconductor materials and components that form the basis of electronic circuits
“tolerance”	the allowable range of variation for a product’s key dimensions, shape, or performance parameters in manufacturing
“wafer”	a thin slice of semiconductor substance, such as crystalline silicon, used in electronics for the making of integrated circuits
“VMI consignment”	vendor managed inventory consignment, a supply chain management strategy where a supplier manages the inventory at the customer’s location, yet the inventory is still owned and maintained by the supplier