

GLOSSARY OF TECHNICAL TERMS

This glossary of technical terms contains definitions of certain terms used in this document in connection with our Group and our business. The terms and their meanings may not always correspond to standard industry meaning or usage of these terms, and may not be directly comparable to similarly titled terms adopted by other companies operating in the same industries as our Company.

“2.5D/3D packaging”	advanced semiconductor packaging technology that enables multi-chip integration through interposer-based interconnection (2.5D) or vertical chip stacking (3D), enhancing performance while reducing package size
“3D NAND”	three-dimensional NAND flash memory, a type of flash memory where memory cells are stacked vertically in many layers, allowing greater storage capacity, faster speed, and lower cost per bit than traditional 2D NAND
“abrasive particle”	a hard particle used to remove, grind, polish, or planarize material from a surface through mechanical action
“advanced packaging”	a set of innovative semiconductor packaging technologies that integrate multiple chips and components into a single, powerful unit, overcoming limitations of traditional packaging to deliver better performance, lower power consumption and smaller sizes
“AI”	artificial intelligence, an area of computer science that focuses on mimicking, extend and expand human intelligence by machines
“ArFi”	argon fluoride immersion lithography, a photolithography technology that uses an argon fluoride (ArF) excimer laser with a liquid immersion system between the projection lens and the wafer to achieve shorter effective wavelengths and higher resolution for printing smaller semiconductor features
“ArF photoresist”	argon fluoride photoresist, a photoresist material used in argon fluoride (193 nm) lithography, featuring fluorinated polymers and photoacid generators for high resolution, transparency, and etch resistance in advanced semiconductor manufacturing
“BARC”	bottom anti-reflective coating, a thin coating applied beneath photoresist during lithography to reduce light reflection from the wafer surface, improving pattern accuracy and critical dimension control
“binders”	materials used to hold active particles together and adhere them to the current collector in lithium battery electrodes
“CAGR”	compound annual growth rate

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“CMP”	chemical mechanical polishing, a polishing method that combines chemical corrosion and mechanical grinding, mainly used in the field of semiconductor manufacturing
“Cleaning Solution”	post-CMP cleaning solution, a formulated cleaning solution used after chemical mechanical polishing to remove particles and organic residues from the wafer surface
“CMP Pad”	chemical mechanical polishing pad, one of the core consumables in chemical mechanical polishing, whose main functions are to retain and transport the polishing slurry, discharge debris, and maintain a stable polishing environment
“CMP Slurry”	chemical mechanical polishing slurry, a liquid material used in chemical mechanical polishing that contains abrasive particles and reactive chemicals, and works with a polishing pad to provide both chemical and mechanical actions for wafer planarization in semiconductor manufacturing
“coating-type material”	a material that is applied onto a substrate as a thin layer through a coating process to form a functional film or coating
“CPT”	color polymerized toner, a color toner produced through a polymerization process, offering uniform particle size, high image quality, and excellent printing performance
“cushion pad”	a pad layer used to provide cushioning, support, or pressure distribution during a manufacturing or polishing process
“dispersants”	additives used to evenly distribute solid particles in battery slurry and improve its stability and processability
“display panel”	core screen component that produces images in electronic display devices
“DRAM”	dynamic random access memory, a type of volatile memory used in computers and other devices to store data that is actively being used or processed, requiring periodic refreshing to maintain the stored information
“foaming”	a process of forming gas bubbles within a material to create a porous or cellular structure
“foundry”	semiconductor manufacturing company that fabricates chips designed by other companies
“IDM”	integrated device manufacturer

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“ink cartridge”	a replaceable consumable component that contains liquid ink used to produce printed text and images in inkjet printers
“integrated circuit”	an electronic device that integrates multiple electronic components, such as transistors, resistors, and capacitors, onto a single semiconductor chip to perform specific functions or processing tasks
“KrF photoresist”	krypton fluoride photoresist, a photoresist material used in krypton fluoride (248 nm) lithography, featuring high transparency and resolution for semiconductor patterning at deep-ultraviolet wavelengths.
“LCD”	liquid crystal display, a flat panel display technology that uses liquid crystals to modulate light and create images
“lithium battery”	a battery that uses lithium or lithium compounds as key active materials to store and release electrical energy
“lithium battery functional auxiliary materials” or “functional auxiliary material”	supporting materials used to enhance the processing performance, stability, and overall functionality of lithium batteries
“microsphere”	a tiny spherical particle, typically in the micrometer size range, used to provide specific physical, chemical, or functional properties in materials or products
“monomer”	a small molecule that can chemically bond with other similar molecules to form a polymer
“NMP”	1-Methyl-2-pyrrolidone, a polar aprotic solvent commonly used in chemical formulations and polymer processing
“OLED”	organic light-emitting diode, a display and lighting technology that uses organic compounds which emit light when an electric current passes through, enabling self-emissive, high-contrast, thin, and flexible displays
“packaging”	a process of enclosing and protecting a semiconductor chip while providing electrical connections between the chip and the external system
“Packaging PI”	a high-performance polymer insulating material used in semiconductor packaging for stress buffering, passivation, redistribution-layer insulation, and device protection
“PAG”	a compound that produces acid upon exposure to light, enabling light-induced chemical reactions in photosensitive materials

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“PET”	polyethylene terephthalate, a common polyester plastic used in films, bottles, and textile fibers
“PFAS-free”	per- and polyfluoroalkyl substances (PFAS) free, a material or product that does not contain PFAS — a group of synthetic chemicals known for their persistence in the environment and potential health risks
“PI”	polyimide, a key material widely used in aerospace, flexible electronics, and semiconductor packaging, serving functions such as passivation, insulation, stress buffering, thermal insulation, and patterning
“polymer”	a large molecule composed of many repeating molecular units, used to form materials such as plastics, resins, fibers, and films
“prepolymer”	an intermediate polymer with reactive groups that can undergo further polymerization or curing to form a final polymer material
“PSPI”	photosensitive polyimide, a polyimide material that can be patterned by photolithography, widely used in OLED manufacturing for planarization layers, pixel-defining layers, and dielectric layers, due to its excellent heat resistance and process adaptability
“RDL”	redistribution layer, a metal routing layer used in advanced packaging to reroute chip connection pads to a different layout for easier external connection
“resin”	a natural or synthetic polymer material used as a binder, matrix, or film-forming component in coatings, adhesives, plastics, and other materials
“SiN”	silicon nitride, a dielectric material commonly used in semiconductor manufacturing for insulation, passivation, and masking
“SOC”	spin-on carbon, a spin-coated carbon-based material used in photolithography as a hard mask or bottom anti-reflective coating, providing excellent etch resistance, planarization, and light absorption for advanced semiconductor patterning
“synthesis”	process of chemically combining simpler substances to produce a more complex compound or material

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“TBA”	temporary bonding adhesive, an adhesive material used for temporary wafer bonding during semiconductor processing, enabling mechanical support and protection before being debonded for further fabrication steps
“TEOS”	tetraethyl orthosilicate, a silicon-containing chemical commonly used as a precursor for depositing silicon oxide films in semiconductor manufacturing
“TFE-INK”	thin-film encapsulation ink, a functional material used in OLED and other display manufacturing for thin-film encapsulation, providing moisture and oxygen barrier protection to enhance device reliability and lifetime
“TiN”	titanium nitride, a hard conductive coating material commonly used in semiconductor manufacturing as a barrier layer, adhesion layer, or metal gate material
“toner cartridge”	a replaceable consumable component that contains toner powder used to form printed text and images in laser printers or copiers
“TSV”	through-silicon via vertical electrical interconnects passing through a silicon wafer or die to enable high-density, three-dimensional chip integration
“VR/AR”	virtual reality and augmented reality, two categories of immersive human-machine interaction technologies, with related devices commonly equipped with high-end OLED displays that require advanced OLED technologies
“wafer”	a thin slice of semiconductor material, typically silicon, used as the substrate on which integrated circuits or other microelectronic devices are fabricated
“YPI”	yellow polyimide, a polyimide material with yellow appearance and high transparency used in front-end OLED panel manufacturing to form a polyimide YPI thin film that replaces the glass substrate material used in rigid screens, offering high thermal and chemical stability and good mechanical properties