

GLOSSARY OF TECHNICAL TERMS

This glossary of technical terms contains definitions of certain technical terms used in this document in connection with us and our business. These may not correspond to standard industry definitions and may not be comparable to similarly terms adopted by other companies.

“ADAS”	advanced driver assistance systems
“AEC-Q100”	a set of qualification test sequences for integrated circuits used in automotive applications issued by the Automotive Electronics Council
“AI”	artificial intelligence
“AIDC power supplies”	power systems and power modules for AI data centers, including high-power, high-efficiency rectification and conversion (AC-DC, DC-DC), 48 V rack power supplies, HVDC bus architectures, and digital power control
“AMOLED”	active-matrix organic light-emitting diode, a display technology. “OLED” (organic light-emitting diode) denotes the thin-film display type based on organic electroluminescence, while “AM” (active matrix) refers to the underlying pixel-addressing architecture
“CAGR”	compound annual growth rate
“CAMM/CAMM2”	compression attached memory module/second-generation compression attached memory module, a compact memory module form factor designed chiefly for PCs
“chip”	a miniature electronic device or component that interconnects essential circuit elements, such as transistors, diodes, resistors, capacitors and inductors, through specific wiring methods with semiconductor fabrication processes into a complete electronic circuit, which are formed on one or several small semiconductor wafers or dielectric substrates and encapsulated in a package
“CPU”	central processing unit, a mass integrated circuit that serves as the computational and controlling core of electronic devices
“CXL”	compute express link, an open industry standard high- speed interconnect that enables efficient, low-latency communication between CPUs and accelerators, memory expanders, or other devices, supporting memory coherence and advanced computing

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“data center”	a complex facility that houses not only computer systems and related equipment, but also includes redundant data communication links, environmental controls, monitoring systems and various security devices, which provides large-scale, high-quality, secure and reliable services such as professional server hosting, space leasing and wholesale bandwidth to internet content providers and websites
“DDR”	double data rate, a memory standard widely used in electronic devices that enables memory modules to transfer data at higher speeds by transmitting data twice per clock cycle
“DDR2/DDR5”	double data rate 2/double data rate 5, the second/fifth successive generations of the DDR memory standard used in electronic devices
“DFN”	dual flat no-lead, a compact, leadless package that uses bottom-side pads for PCB attachment, offering low profile, small footprint, low parasitics, and strong thermal and electrical performance; well suited to high-density, space-constrained modules
“DIMM”	dual in-line memory module, a type of memory module used in computers, consisting of DRAM chips mounted on a small circuit board with separate electrical contacts on each side, allowing for wider data paths and higher performance compared to older SIMMs
“DRAM”	dynamic random access memory, a semiconductor storage device
“EEPROM”	electrically erasable programmable read-only memory, a non-volatile memory technology that supports electrical reprogramming, retains data without power, offers endurance of at least 1,000,000 program/erase cycles, and is primarily used to store small datasets that require frequent updates
“edge AI”	technology paradigm that combines the capabilities of AI with edge computing, deploying AI algorithms and models directly on edge devices, such as IoT sensors, smartphones, industrial machines and other local computing devices
“edge computing”	the process to move data processing, storage, and intelligent decision making from remote cloud and data centers to the network edge, closer to the data source such as end devices, gateways, base stations, or on premises servers
“E/E”	electrical/electronic
“ETOX”	Electrically Tunneling Oxide, a process technology for non-volatile memory that uses a floating gate structure for data storage

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“EV”	electric vehicle
“fabless”	IC design companies that focus solely on IC research, development and sales, while outsourcing wafer fabrication, packaging and testing to specialized foundries and service providers; the term is sometimes also used to refer to this business model
“fabrication”	the process of manufacturing or constructing products by assembling, shaping, or processing raw materials through various techniques and steps
“factory gateway”	a device connecting shop floor machines to IT systems for data collection, monitoring, and analysis, enabling smart manufacturing
“foundry”	a manufacturer specializing in the production and manufacture of chips in the field of integrated circuits
“frequency”	the rate at which a power electronic device, such as a switch or rectifier, operates; it is a crucial factor influencing the performance and efficiency of power systems
“IATF 16949”	the automotive industry’s quality management system (QMS) standard
“IC”	integrated circuit, a small unit or package which is made as a single indivisible structure (such as a chip) and is electrically equivalent to a conventional circuit of many separate components
“IC design”	the entire process of circuit function definition, structural design, circuit design and simulation, layout design and verification, as well as subsequent post-design processing
“ICE”	internal combustion engine
“I ² C”	inter-integrated circuit, a multi-master, multi-slave serial communication protocol that enables low-speed data exchange between chips on a circuit board using only a data line and a clock line
“I ³ C”	improved inter-integrated circuit, a high-speed, low- power communication protocol designed as the successor to I ² C
“I ² C/I ³ C hub”	hardware implementing the I ² C/I ³ C protocol to aggregate and manage multiple I ² C/I ³ C peripherals behind a single host I ² C/I ³ C port
“IoT”	Internet of Things

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“ISO/IEC”	the family of international standards jointly developed and published by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC)
“JEDEC”	Joint Electron Device Engineering Council (now known as the JEDEC Solid State Technology Association), a global organization in developing open standards for the microelectronics industry
“LCD”	liquid crystal display
“lens driver chips”	an IC that controls the actuator or motor of a camera lens in imaging modules
“line card”	a modular electronic circuit designed to fit on a separate printed circuit board and interface with a telecommunications access network
“logic controller”	an industrial computer that automates machines and processes by monitoring inputs, executing pre-programmed logic, and controlling outputs
“LPCAMM/LPCAMM2”	low power compression attached memory module/second-generation low power compression attached memory module, a low-power compression-attached memory module used primarily in personal computers and servers
“LRDIMM”	load reduced dual in-line memory module, a type of memory module that uses a buffer to reduce the electrical load on the memory controller, enabling higher memory capacity and improved signal integrity, particularly in servers and advanced systems
“MCU”	microcontroller unit, being an IC that combines a processor core, memory and programmable input/output peripherals on a single chip to control embedded systems and electronic devices
“memory”	a storage device within an electronic system used to store programs and data, such as all information in a computer including input data, computing programs, intermediate results and final outputs, which stores and retrieves information according to the addresses specified by the controller
“Microwire”	a thin, flexible metallic wire used in products and processes for signal transmission, sensing, and other functional purposes

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“MRDIMM”	multiplexed rank dual in-line memory module, a high-bandwidth server memory module based on the DDR5 LRDIMM architecture adopting the “1+10” design consisting of one MRCD chip and 10 DB chips, which, compared with RDIMM and LRDIMM, enables simultaneous access to two memory arrays on the module and effectively doubles the bandwidth; the first generation of MRDIMM is also referred to MCRDIMM by some manufacturers
“NFC”	near field communication
“NFC Forum”	a non-profit industry association that defines technical specifications for NFC technology, ensuring interoperability between devices and offering certification to guarantee compliance
“NOR Flash”	a code-storage flash memory chip and one of the primary non-volatile memory technologies
“NORD”	a process technology for non-volatile memory that uses a dual floating gate structure for data storage
“OIS”	optical image stabilization, a stabilization method and uses tiny actuators to slightly move the lens or image sensor to counteract blur caused by shaking, making photos and videos clearer
“OSAT”	outsourced semiconductor assembly and test, in the fabless model, OSAT providers handle wafer singulation, packaging, pre- and post-package testing (including wafer sort, final electrical test, and burn-in/reliability stress), and shipment of finished products
“packaging”	the process of encapsulating the bare die into a finished chip product with external shell and leads, which is electrically connected to external pins through wires or other interconnection methods and then securely closed; IC packaging not only provides electrical connections between the internal bonding points of the chip and the external circuitry, but also offers a stable and reliable operating environment, ensuring proper functionality, high stability and long-term reliability
“PC”	end-user computing devices including notebook computers, desktop computers and workstations

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“PMIC”	power management IC, a specialized integrated circuit that manages voltage regulation, power distribution, and real-time monitoring in electronic systems, which optimizes power efficiency while ensuring stable operation across all power domains
“PPM”	parts per million, a unitless measure of defect rate calculated as the number of defective units per million units produced or opportunities for defects
“RDIMM”	registered dual in-line memory module, a type of memory module that uses RCD chips to buffer address, command, and control signals. It is mainly used in servers
“R&D”	research and development
“RF sensitivity”	the minimum radio frequency signal strength that the receiver components can successfully detect and process
“RFID”	radio frequency identification, a wireless communication technology that identifies specific targets and reads or writes related data via radio signals without requiring mechanical or optical contact between the identification system and the target
“servo driver”	an electronic device that controls a servo motor, taking commands for position, speed, or torque from a controller and delivering precise power to make the motor perform the exact movement required
“Sideband Bus”	a dedicated, low-speed communication channel used alongside a main data bus (like DDR memory) to handle essential management, configuration, and telemetry data, preventing congestion on the primary high-speed path
“SOCAMM/SOCAMM2”	small outline compression attached memory module/second-generation small outline compression attached memory module, a compact compression-attached memory module form factor used primarily in servers
“SODIMM”	small outline DIMM, a small-form-factor dual in-line memory module used primarily in notebook computers
“SPD”	serial presence detect, an SPD chip is an EEPROM-based non-volatile memory chip that stores configuration data (such as timing, voltage and capacity), enabling a system to automatically initialize and operate the memory correctly; in DDR5, the SPD chip also integrates an I ² C/I ³ C hub and temperature sensing
“SPI”	a synchronous serial peripheral interface that enables an MCU to communicate with a variety of peripherals in serial form to exchange data

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“SPI NOR”	non-volatile flash memory that utilises SPI protocol and a Not-OR design for quick access to any part of the stored data
“SSD”	solid-state drive, a storage device that uses flash memory to store data, offering faster read/write speeds, lower latency and greater durability compared to traditional mechanical hard drives
“tape-out”	the final stage in the IC design process where the verified physical design data (mask sets) is released to the semiconductor foundry for wafer fabrication
“TCO”	total cost of ownership
“TDFN”	thin dual flat no-lead, the thin variant of DFN
“testing”	the process of wafer testing, final product testing reliability testing and failure analysis
“TS”	temperature sensor
“UDIMM”	unbuffered DIMM, an unbuffered dual in-line memory module used primarily in desktop computers
“UPI”	ultra path interconnect, a high-speed, point-to-point processor interconnect technology used to link multiple CPUs in a multiprocessor system, enabling fast data transfer and coherence between processors
“voltage” or “V”	voltage, the unit of electric potential or voltage, which measures the difference in electric potential between two points in a circuit
“VPD”	vital product data, a non-volatile data mechanism used in devices or modules (such as eSSD and CXL memory modules) to store key information including device identity, configuration parameters, calibration, and telemetry, supporting system-level identification, verification, and operations and maintenance
“wafer”	a circular silicon substrate used in the manufacturing of ICs, where various circuit structures can be fabricated to produce IC products with specific electrical functions
“WLCSP”	wafer level chip scale package, a chip-scale packaging technology in which redistribution and solder ball formation are completed at the wafer level