
GLOSSARY OF TECHNICAL TERMS

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

“3D”	three spatial dimensions of width, height and depth
“ACC”	adaptive cruise control
“AD”	autonomous driving
“AD domain controller(s)”	autonomous driving domain controller(s) which function as the brain in the autonomous driving solutions, fusing and processing data from sensors such as cameras, radar and LiDAR to make driving decisions and trigger actuators in the vehicles
“AD domain controller solution(s)”	AD domain controller(s) with the relevant sensors
“ADAS”	advanced driver assistance systems, or advanced driver assistance system, referring to electronic systems developed to automate, adapt, and enhance vehicle systems for safety and better driving, normally featuring level 1 and level 2 (covering level 2+) driving automation on a vehicle supporting human drivers
“ADS”	automated driving systems, referring to the hardware and software that are collectively capable of performing the entire dynamic driving task on a sustained basis, regardless of whether it is limited to a specific operational design domain, used specifically to describe a level 3 through level 5 driving automation system
“AEB”	automatic emergency braking
“AK1 ultrasonic sensor(s)”	automotive-grade ultrasonic sensors that are economical and are widely used in the industry
“AK2 ultrasonic sensor(s)”	a new generation of automotive-grade ultrasonic sensors, which has wider perception range and smaller blind area compared with AK1 ultrasonic sensors

GLOSSARY OF TECHNICAL TERMS

“APA”	automatic parking assistance
“ASIL”	automotive safety integrity level, a risk classification system for the functional safety of road vehicles
“AUTOSAR”	Automotive Open System Architecture, a development partnership of automotive interested parties founded in July 2003
“BEV”	battery electric vehicles
“Bird-Eye View”	an elevated view of an object or location from a very steep viewing angle, creating a perspective as if the observer were a bird in flight looking downwards
“C-NCAP”	The China New Car Assessment Program
“CNN”	convolutional neural networks
“domain controller(s)”	a computer that controls a set of vehicle functions related to a specific area, or domain. Functional domains that require a domain controller are typically compute-intensive and connect to a large number of input and output devices. Examples of relevant domains include autonomous driving, cockpit, powertrain, chassis and body
“DVR”	digital video recorder
“ECUs”	electronic control units, embedded systems in automotive electronics that controls one or more of the electrical systems or subsystems in a car or other motor vehicle
“ELK”	emergency lane keeping
“entry-level passenger vehicle(s)”	passenger vehicle(s) with selling prices under RMB150,000
“ESS”	emergency steering assistance
“Ethernet”	a family of wired computer networking technologies commonly used in local area networks, metropolitan area networks and wide area networks

GLOSSARY OF TECHNICAL TERMS

“EURO-NCAP”	The European New Car Assessment Programme. Established in 1997, the EURO-NCAP provides consumers with a safety performance assessment for the majority of the most popular cars in Europe. EURO-NCAP has created the five-star safety rating system to help consumers, their families and businesses compare vehicles more easily. The safety rating is determined from a series of vehicle tests, designed and carried out by EURO-NCAP. These tests represent, in a simplified way, important real-life accident scenarios that could result in injured or killed car occupants or other road users. The number of stars reflects how well the car performs in EURO-NCAP tests, but it is also influenced by what safety equipment the vehicle manufacturer is offering in each market. So a high number of stars shows not only that the test result was good, but also that safety equipment on the tested model is readily available to all consumers in Europe. The star rating goes beyond the legal requirements and not all new vehicles need to undergo EURO-NCAP tests. According to the EURO-NCAP, OEMs are responsible to carry out the testing.
“FCW”	forward collision warning
“Fish-Eye Camera(s)” or “fisheye camera(s)”	camera(s) with fisheye lens which produces strong visual distortion to create a wide panoramic or hemispherical image
“GB/s”	a data-rate unit of gigabyte per second
“GFHB”	glare-free high beam
“GPS”	the global positioning system
“GPUs”	graphics processing units, designed to manipulate and alter memory to accelerate the creation of images in a frame buffer intended for output to a display device
“GSR”	General Safety Regulation (EU) 2019/2144
“HEV”	hybrid electric vehicle, a type of hybrid vehicle that combines a conventional internal combustion engine system with an electric propulsion system

GLOSSARY OF TECHNICAL TERMS

“Highway NoA ”	navigate on autopilot on highways
“HMI”	human-machine interface
“HPA”	home-zone parking assistance
“IC(s)”	integrated circuit(s)
“ICC”	intelligent cruise control
“ICE”	internal combustion engine
“LCC”	lane centering control
“LDW”	lane departure warning
“LED”	a light-emitting diode, a semiconductor device that emits light when current flows through it
“letter(s) of nomination”	the confirmation sent out by OEMs as a commitment to form formal cooperative relationships. The companies that receive letters of nomination are qualified to join the OEMs’ supply chains because they have been selected as a designated suppliers for a specific component. In most cases, OEMs only pick one supplier and issue the letter of nomination for a certain autonomous driving solution required for a specific vehicle model. Letters of nomination do not constitute legally, binding contracts and can be unilaterally terminated by OEMs. There is no guarantee that OEM customers will purchase our solutions and products in large quantities or at all and at a price that will be profitable to us even having entered into a letter of nomination as there is no certainty of finalization of contract and such letter of nomination may be terminated
“LiDAR”	light detection and ranging, a method for determining ranges by targeting an object or a surface with a laser and measuring the time for the reflected light to return to the receiver
“Linux”	a family of open-source Unix-like operating systems based on the Linux kernel

GLOSSARY OF TECHNICAL TERMS

“mainstream third-party AD domain controller provider(s)”	third-party AD domain controller provider(s) which generated revenue of more than RMB50 million in each of 2021 and 2022
“MCUs”	microcontroller units, small computers on a single IC containing a processor core, memory and programmable input and output
“middleware”	software framework that acts as a bridge between the upper-layer application and the underlying hardware
“mid- to high- end passenger vehicle(s)”	passenger vehicle(s) with selling prices between RMB150,000 and RMB300,000
“MPV”	multi-purpose vehicle
“NEV(s)”	new energy vehicles, comprising of battery electrics vehicles, plug-in hybrid electric vehicles and fuel cell vehicles
“NoA”	navigate on autopilot
“ODD”	operational domain design, a description of the specific operating conditions in which the autonomous driving solutions and products are designed to properly operate
“OEM(s)”	automotive original equipment manufacturer(s) (automotive manufacturer(s)), company(ies) that design, develop, and manufacture vehicles, and market their vehicles directly to customers
“OS”	operating systems
“OTA”	over-the-air
“PCB”	printed circuit board
“PCBA”	printed circuit boards assembly, which is the PCB after mounting various components, such as resistors, ICs and capacitors, depending on the application and desired characteristics of the board

GLOSSARY OF TECHNICAL TERMS

“PHEV”	plug-in hybrid electric vehicle, a type of hybrid electric vehicle whose battery pack can be recharged by plugging a charging cable into an external electric power source, in addition to internally by its on-board internal combustion engine-powered generator
“premium passenger vehicle(s)”	passenger vehicle(s) with selling prices above RMB300,000
“point-to-point assisted driving navigation”	represents navigation assistance while driving from one location to another, including entering and exiting highways, ring roads, complex urban roads, country roads, and parking areas. As a result, it has autonomous driving functions for both high-speed driving and low-speed parking scenarios
“RPA”	remote parking assistance
“RTOS”	a real-time operating system
“SAE”	the SAE International, formerly named as the Society of Automotive Engineers, is a United States-based, globally active professional association and standards developing organization for engineering professionals in various industries. The principal emphasis is placed on global transport industries such as aerospace, automotive, and commercial vehicles. The SAE standard of level of autonomous driving is widely accepted by the global automotive industry. Market participants classify autonomous driving solutions into more specific categories based on the SAE classification, such as level 2+, as a standard practice in the industry to give users and customers a more precise idea of the level of automation of their products
“series production”	also known as mass production, is a manufacturing process where products are produced in large quantities using standardized designs, machinery, and assembly line techniques
“SMT”	surface mount technology, a method in which the electrical components are mounted directly onto the surface of a printed circuit board

GLOSSARY OF TECHNICAL TERMS

“SoC(s)”	systems-on-chip(s), programmable IC(s) that integrates CPU, memory interfaces, on-chip input/output devices, input/output interfaces, and secondary storage interfaces, often alongside other components such as radio modems and a graphics processing unit, all on a single substrate or microchip
“SUV”	sport utility vehicle
“SV3D”	surround view 3D display, the surround view system that provides a complete 360° view around the entire vehicle
“the base version of AD domain controllers”	autonomous driving control unit of SuperVision™, as referred in the product sales agreement with Mobileye, the L2+ ECU, serving as an intelligent computing platform for applications to the autonomous driving, responsible for perception, data fusion, localization, planning and vehicle control
“Tier-1 supplier(s)”	automotive system integrator(s), company(ies) that supply(ies) assembled components or systems directly to OEMs. Tier-1 suppliers need to work closely with OEMs during the design and development stages of vehicles, ensuring the integration of their components into the final product
“Tier-2 supplier(s)”	company(ies) that supply(ies) parts or materials directly to Tier-1 suppliers, such as raw materials, smaller sub-components that are then incorporated into the components supplied by Tier-1 suppliers
“Transformer”	a deep learning model that adopts the mechanism of self-attention, differentially weighting the significance of each part of the input data
“TSR”	traffic sign recognition
“Urban NoA”	navigate on autopilot in urban areas
“USS(s)”	ultrasonic sensor(s)