GLOSSARY OF TECHNICAL TERMS

In this document, unless the context otherwise requires, explanations and definitions of certain terms used in this document in connection with our Group and our business shall have the meanings set out below. The terms and their meanings may not correspond to standard industry meaning or usage of these terms.

π-mirror	a chassis blind spot real-time monitoring system that eliminates potential blind spots under the vehicle through unique optical design and optimized installation positioning
3D	three-dimensional
8/17M	8/17 mega
AA	active alignment, a high-precision assembly process that uses real-time optical feedback to position lens elements with micro-meter accuracy relative to image sensors
ADAS	advanced driver assistance systems
ADB	adaptive driving beam
ADS	autonomous driving systems
AEB	automatic emergency braking
ALD	atomic layer deposition, a thin-film deposition technique used for applying coating materials that meet automotive-grade requirements
AR-HUD	augmented reality head-up display
AVM	around view monitor
CFA	color filter array, the array of color filters on an image sensor that enables image sensors to perceive red, green and blue light to generate color images
CMOS	complementary metal-oxide-semiconductor
CMS	camera monitor systems
CO_2	carbon dioxide
COB	chip-on-board, a packaging technology that directly mounts image sensor chips onto printed circuit board assemblies, eliminating the need for traditional chip carriers
DLP	digital light processing, a projection technology using a micro-mirror array to generate high-brightness images

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DLP PGU	digital light processing picture generation unit, an ultra-high-resolution image generation component used in advanced AR-HUD systems
DMS	driver monitoring systems
DVR	digital video recorder
E/E Architecture	the vehicle's electrical and electronic system architecture
F.NO	the ratio of the lens focal length to the diameter of the entrance pupil, expressed as f/N (such as f/1.8 or f/2.0), where a smaller value indicates a larger aperture allowing more light to enter the sensor
FOV	field of view, the angular extent of the observable area that a camera can capture
Glass-plastic hybrid	a lens structure that combines glass and plastic optical elements to achieve optimal balance of optical performance, weight reduction and cost efficiency
HFOV	horizontal field of view, the range of vision that the camera can capture in the horizontal direction, measured in degrees
HMI	human-machine interface, the interfaces and interaction methods for users to receive information from and control vehicle systems
HUD	head-up display
IATF 16949	the international quality management system standard specifically developed for the automotive industry
IR	a color filter configuration for infrared light detection used in driver monitoring applications
ITO	indium tin oxide, a transparent conductive material used in heating films for automotive optical components
L2	level 2 of driving automation, or partial automation. level 2 capabilities can assist drivers in controlling speed and steering, such as help with stop-and-go traffic by maintaining the distance between the driver's vehicle and the vehicle in front, and providing steering assist by centering the vehicle within the lane, while still requiring drivers to have hands on the wheel and be ready to take control at any given moment

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L3	level 3 of driving automation, or conditional automation, which allows vehicles to drive themselves, but only under ideal conditions and with limitations, such as limited access divided highways at a certain speed and parking lots. Drivers are still required behind the wheel whereas their hands are off the wheel
L4	level 4 of driving automation, or high automation, which allows vehicles to drive themselves without human interactions but will be restricted to known use cases, or in most environments and road conditions
LCoS	liquid crystal on silicon, a microdisplay/projection technology using liquid crystal on a silicon backplane for image formation
LED	light-emitting diode
LiDAR	Light detection and ranging sensor, a remote sensing method that uses light to measure the distance or range of objects
LT+N	an inventory ordering model where LT refers to the supplier lead time and N refers to additional buffer days for procurement planning
MOC	mechanical-opto-coupled, a simulation design methodology that enables integrated simulation and optimization of optical, mechanical and thermal performance
MTF	modulation transfer function, a measurement of the optical performance and image quality of a lens system
MWh	megawatt-hour
MWp	megawatt-peak
NEV	new electronic vehicle
NEVs	new energy vehicles, vehicles that use alternative fuel sources such as electricity, hydrogen or hybrid powertrains
nm	nanometer, a unit of wavelength measurement equal to one billionth of a meter
Nomination	the selection by a customer for a particular project or product, typically following a competitive evaluation process
OEMs	original equipment manufacturers, which assemble and install automotive parts during the construction of a new vehicle

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OMS	occupant monitoring systems
Opto-mechanical-electro-algorithmic	an integrated technology platform combining optical, mechanical, electrical and algorithmic capabilities for comprehensive system-level optical solutions
Opto-mechanical transceiver	an integrated optical and mechanical assembly that transmits and receives laser signals in LiDAR systems
PCBA	printed circuit board assembly, a printed circuit board with electronic components mounted on it
PGU	picture generation unit, the core image generation component of in-cabin projection display systems, functioning as an integrated compact projector
Pixel	the number of photosensitive units on an image sensor
ppm	parts per million
PV	peak-to-valley, the difference between the actual surface profile curve and the theoretical surface profile curve of an optical component, where a smaller value indicates more precise optical surface and better optical performance
RCCG	a color filter array pattern with red, cyan, cyan, green configuration
RGB	a common color filter array pattern with red, green, blue configuration
RGB-IR	a color filter array pattern with red, green, blue and infrared configuration
RGGB	a color filter array pattern with red, green, green, blue configuration
Robotaxi	an autonomous vehicle designed to provide driverless taxi services to passengers
ROI	region of interest, the designated area on the chip where the laser spot should fall after reflecting off the target object and returning
RYYCy	a color filter array pattern with red, yellow, yellow, cyan configuration
SDV	software defined vehicle, a vehicle architecture where software controls and defines vehicle functions, enabling over-the-air updates and feature enhancements

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SMT	surface mount technology
SOC	system on chip, an integrated circuit that consolidates multiple electronic components and functions onto a single chip
SPAD	single-photon avalanche diode, a type of photodetector used in LiDAR systems for detecting reflected laser signals
sq.m.	square meters
tCO_2	tonnes of carbon dioxide equivalent
TFT	thin-film transistor, a display-driving technology commonly used in flat-panel displays and certain HUD optical engines
Tier-1 suppliers	automotive suppliers that supply components, systems or modules directly to OEMs
TOF	time-of-flight, a distance measurement technology used in camera modules that calculates the time taken for light to travel to an object and back to determine depth information
VLA	vision-language-action
world model	neural networks that understand the dynamics of the real world