

APPENDIX VIII

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.

“ABS”	anti-lock braking system, a safety feature that prevents wheels from locking up during hard braking, allowing the driver to maintain steering control and reducing skidding
“ADAS”	advanced driver assistance systems, automotive safety technologies that use sensors, control units, and software to assist the driver in perceiving driving conditions
“air spring(s)”	a pneumatic suspension component that uses compressed air to support vehicle load and absorb road vibrations, providing adjustable ride height and improved passenger comfort
“air supply unit(s)”	an integrated system that generates, regulates, and delivers compressed air to pneumatic components, ensuring stable air pressure and reliable operation of pneumatic systems
“APA”	automated parking assist, a driver assistance system that automatically controls steering, acceleration, and braking to park the vehicle in parallel or perpendicular spaces with minimal driver intervention
“ASIL-D”	automotive safety integrity level D, the highest safety integrity level defined under ISO 26262, the international functional safety standard for automotive electrical and electronic systems
“autonomous driving”	technology that enables vehicles to operate autonomously under specific or all conditions, classified into six automation levels (L0-L5) according to SAE J3016 standard
“ball screws”	a mechanical transmission component that converts rotary motion into linear motion using recirculating ball bearings, characterized by high precision and efficiency
“BbW” or “brake-by-wire”	brake-by-wire, an electronically controlled braking system in which braking commands are transmitted primarily through electrical signals rather than mechanical or hydraulic connections. Technologically, brake-by-wire systems can be broadly categorized into EHB systems and EMB systems
“brake redundancy functionality”	a safety design feature in brake systems that provides backup braking capability through redundant components or control paths, ensuring braking performance is maintained even when part of the system fails

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“caliper”	a key component of a mechanical disc braking system that applies braking force by pressing brake pads against a rotating brake disc to generate friction and decelerate or stop a vehicle
“CAN-FD”	controller area network flexible data-rate, an enhanced in-vehicle communication protocol that enables higher bandwidth data transmission and faster signal transmission rates, supporting efficient communication among numerous electronic control units in modern vehicles
“CCU”	central control unit, a centralized computing platform serving as the main processing hub in modern vehicle electronic architecture, coordinating data flow and control functions across multiple vehicle domains
“C-EPS”	column-type electric power steering, an electric power steering system where the assist motor and reduction gear are directly mounted on the steering column, featuring compact structure and lower cost
“design win”	the process of successfully incorporating a supplier’s products or components into a customer’s product design during the early stages of product development, marking the supplier’s qualification for supply on that project
“domain controller(s)”	a centralized computing unit in automotive electrical/electronic architecture that integrates and manages multiple electronic control functions across different vehicle domains, enabling coordinated control, higher integration and better system scalability
“dual-mode air supply unit”	an air supply system primarily operating in a closed-loop configuration to achieve higher energy efficiency, reduced air loss and improved noise control. It may incorporate dual-mode capability, allowing adaptive switching to an open-mode configuration when required, combining efficiency with operational flexibility
“D-EPB”	dual-pinion electric power steering, an electric steering configuration employing two pinions engaging with the steering rack, providing enhanced steering feel and higher assist capability
“DP-EPS”	dual-pinion EPS, an electric steering configuration that employs two pinion gears engaging the steering rack to deliver enhanced steering feel and higher assist capability

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“E/E architecture”	electrical/electronic architecture, the overall system framework defining the layout and interaction of electrical and electronic components, control units, networks, and software within a vehicle; modern automotive E/E architecture is evolving from distributed ECU architecture to centralized domain controller architecture
“ECU”	electronic control unit, a microcomputer-based dedicated device that controls specific electrical systems or subsystems in a vehicle, such as engine management, transmission control, or braking systems; modern vehicles may contain dozens of ECUs
“EDC”	electronic damping control, an adaptive suspension system that uses electronically controlled shock absorbers to continuously adjust damping force based on road conditions and driving style, improving ride comfort and handling performance
“EHB”	electro-hydraulic brake, a brake-by-wire system that decouples the brake pedal from the hydraulic brake circuit, using electronic sensors to detect driver braking intention and regulating hydraulic pressure through electronic control units controlling electric pumps and valves; retains hydraulic backup for safety while achieving faster response times and seamless integration with regenerative braking in electric vehicles
“electronic control suspension”	an advanced vehicle suspension system that uses electronic sensors, control units, and actuators to automatically adjust suspension characteristics, optimizing ride comfort and handling stability
“EMB”	electronic mechanical braking, a fully electric brake-by-wire system that uses electromechanical actuators to generate braking force at each wheel, completely eliminating the need for hydraulic fluid, vacuum boosters, or mechanical linkages, representing next-generation braking technology for electric vehicles and autonomous cars
“EPB”	electronic parking brakes, an electronically controlled parking brake system that replaces traditional handbrake levers or foot pedals with electronic switches, using motor-driven actuators to apply and release rear wheel brakes for vehicle parking; typically includes auto-hold function
“ERP”	enterprise resource planning, an integrated software management platform for managing core business processes including procurement, production, inventory, sales, and finance, enabling real-time data visibility and operational efficiency improvement

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“EPS”	electric power steering, a key technology for highly automated driving that controls and assists with the support of an intelligent electric motor the vehicle steering
“ESC”	electronic stability control, a safety system that detects and reduces loss of traction (skidding) by automatically applying brakes to individual wheels and/or reducing engine power, helping drivers maintain vehicle control during emergency maneuvers or on slippery surfaces; also known as ESP (Electronic Stability Program) or VDC (Vehicle Dynamics Control)
“FCA”	a trade term from Incoterms 2020 (International Commercial Terms), referring to the seller delivering goods to a carrier or location designated by the buyer, at which point risk and responsibility transfer from seller to buyer; commonly used in cross-border automotive supply chain transactions
“full-domain active control”	an integrated control method in vehicle systems that actively coordinates multiple functional domains including braking, suspension, steering, and powertrain through centralized control algorithms, optimizing the vehicle’s overall dynamics, stability, and safety under various operating conditions
“full-dry EMB”	an electronic-mechanical braking technology in which braking force is generated entirely through electric actuation and mechanical transmission, without the use of hydraulic or pneumatic media
“ISO”	International Organization for Standardization, an independent non-governmental organization that develops and publishes international standards; in the automotive industry, standards such as ISO 26262 (Functional Safety) and ISO 21434 (Cybersecurity) are particularly important
“LDW”	lane departure warning, an ADAS function that uses cameras to monitor lane markings and alerts drivers through visual, auditory, or tactile warnings when the vehicle unintentionally drifts out of its lane without activating turn signals
“lightweight”	the reduction of component mass through materials and design optimization without compromising functional or safety requirement
“LKA”	lane keeping assist
“low-drag”	a design characteristic of components or systems aimed at minimizing resistance such as aerodynamic drag or mechanical friction, thereby improving energy efficiency and performance

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“mass production”	a large-scale production phase that adopts automated intelligent manufacturing and engineering facilities to ensure product consistency, reduce labor costs, enhance utilization, and achieve cost-efficiency
“mechanical disc brakes”	also known as disc brakes, it operates by clamping a brake disc to generate friction for deceleration
“motor clamping-force control algorithms”	a control algorithm for motor-driven systems that precisely regulates and adjusts clamping force by controlling motor output
“NVH”	noise, vibration and harshness, key indicators for measuring and optimizing vehicle ride comfort, involving analysis and reduction of unwanted noise and vibration felt by drivers and passengers inside the vehicle; good NVH performance is an important characteristic of premium automobiles
“OEMs”	original equipment manufacturer, automotive original equipment manufacturers, referring to companies that design, develop, and manufacture automobiles and market their vehicles directly to customers
“One-box BbW system”	a brake-by-wire system in which core braking functions are highly integrated into a single, consolidated control unit (“ One-box ”), enabling reduced packaging complexity, improved system efficiency and enhanced reliability compared with multi-module architectures
“PCBAs”	printed circuit board assemblies, an assembly consisting of a printed circuit board and electronic components mounted and soldered onto it, providing electrical interconnection and mechanical support for electronic circuits in automotive, industrial, and electronic systems
“P-gear locking mechanism”	a mechanical locking mechanism used to secure a vehicle in the park (P) position

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“rear-wheel steering”	a vehicle control technology where rear wheels are actively steered by an electronic system to enhance maneuverability, stability, and handling performance at different driving speeds and conditions; improves flexibility at low speeds and enhances stability at high speeds
“REM”	road experience management, a cloud-based mapping technology that collects and processes real-time road condition data from connected vehicles to create high-definition maps for autonomous driving applications
“R-EPS”	rack-type electric power steering, an advanced electric steering architecture where the assist motor acts directly on the steering rack through a belt or ball screw mechanism, providing higher assist capability
“rolling screws”	rolling screws primarily comprise ball screws, planetary roller screws and miniature screws that use recirculating rollers or balls to convert rotary motion into linear motion
“SBW” or “steering-by-wire”	steering-by-wire, an electronically controlled steering system that replaces mechanical steering linkages with electrical signal transmission and actuators
“SMT”	surface mount technology, a method of mounting electronic components directly onto the surface of printed circuit boards, the standard process in modern electronics manufacturing
“solenoid valves”	an electromechanically controlled valve that uses an electromagnetic coil to open, close, or regulate the flow of fluids or gases, widely used in automotive braking and suspension systems
“WCBS”	wire-controlled brake system, a brake-by-wire technology that relies on electronic signals rather than mechanical or hydraulic connections to transmit braking commands from the pedal to brake actuators, achieving faster response times and enhanced integration with advanced driver assistance systems
“wiring harness”	an organized assembly of electrical wires, connectors, and protective components used to transmit power and signals between electrical and electronic systems
“XYZ-axes control”	a vehicle motion management strategy that coordinates longitudinal (X), lateral (Y), and vertical (Z) forces to maintain precise handling, stability, and ride comfort across all driving conditions