#### **OUR MISSION**

Empower lives through innovative technology solutions, maximizing the benefits of human/ device interactions (賦能科技,感知無限).

Tools have always been a cornerstone for humans to creativity, innovation and progress. As the global economy undergoes digital transformation through Edge AI and smart applications, alongside the rise of generative AI and the accelerating adoption of smart vehicles with ADAS features, consumer demand for intelligent interaction with electronic devices continues to evolve and flourish, propelling the next wave of innovation in solution design, engineering and utilization.

We were founded on the belief that the accelerating digitalization of our daily lives is one of the most powerful driving forces of technological advancement. We are committed to leading this transformation by seamlessly integrating humans and the digital world to build a brighter future. We are focused on understanding the diverse needs of customers and industries across various application scenarios. Our goal has been to evolve into a high-growth, self-innovating high-tech enterprise that not only represents the forefront of the industry but also create meaningful impact across diverse stakeholder groups. We remain dedicated to establishing ourselves as a leader in both the domestic and international semiconductor design and distribution sectors.

#### WHO WE ARE

We are one of the world's top 10 fabless semiconductor companies based on 2024 revenue, according to Frost & Sullivan. We are distinguished by our advanced proprietary technologies, diversified products and solution portfolio, flexible fabless business model, and extensive customer network and supply chain ecosystems. We have built strong brand awareness and gained wide recognition in the global market.

We design and develop high-performance ICs. We are currently engaged in three main product lines: advanced digital imaging solutions, display solutions and analog solutions, and continue to expand our product and solution offerings so as to serve high-growth verticals such as smartphone, automotive, medical, surveillance, and emerging markets (machine vision, smart glasses, and Edge AI). We are one of the few IC design companies in the world with a comprehensive suite of product lines and strong design capabilities, which enables us to design, develop, and market a wide range of high-performance, highly integrated semiconductor solutions designed for mission-critical applications across diverse industry verticals.

In particular, we are a pioneer in advanced digital imaging technology and the third largest digital image sensor providers globally based on revenue from digital imaging solutions in 2024, according to Frost & Sullivan. Our proven technology expertise and commitment to providing leading services have helped us establish top-of-mind brand awareness and achieve strong market recognition globally.

Our recent core business achievements are set forth in the diagram below.



Notes:

- (1) In terms of revenue in 2024, according to Frost & Sullivan
- (2) In terms of corresponding revenues in 2024, according to Frost & Sullivan
- (3) Customers with revenues generated in 2024
- (4) As of December 31, 2024

# **OUR FLEXIBLE AND EFFICIENT FABLESS BUSINESS MODEL**

We employ a fabless manufacturing strategy, allowing us to concentrate on the design and sales of semiconductor products and solutions while collaborating with world-leading suppliers for wafer fabrication, packaging, and testing. The fabless model offers a wide range of advantages, including (i) greater operational flexibility, (ii) access to leading-edge manufacturing technologies through strategic partnerships, and (iii) the ability to quickly adapt to market demands while achieving higher production efficiency. In markets where technology evolves rapidly and semiconductor innovation drives continuous advancement, our fabless model enables us to respond swiftly to shifting market demands without incurring substantial capital expenditures. This flexibility allows us to upgrade our technology solutions more efficiently and cost-effectively.

We have maintained long-standing partnership with world-leading foundries with whom we work collaboratively to leverage their state-of-the-art facilities. As wafer fabrication becomes increasingly sophisticated, this relationship ensures our products remain at the forefront of innovation.

While we outsource both front-end and back-end manufacturing, packaging and testing processes, we also operate in-house final testing facilities to establish an effective product-test-feedback loop. This approach not only ensures better quality control but also enhances our design expertise by providing valuable insights from testing outcomes. Additionally, our in-house capabilities offer a capacity buffer in addition to outsourced testing processes, further strengthening our ability to deliver reliable and high-performance semiconductor solutions. Testing is becoming increasingly important as the company's business in the automotive vertical grows given the very stringent industry requirements of those customers.

We believe our fabless business model reduces our capital requirements, operating expenses and time to market, allowing us to concentrate our resources on strengthening our core competencies in research and development, technological innovation, and product design.



Note:

(1) We have also established in-house final testing facilities, through which we are able to obtain timely feedback on product performance, and establish an efficient R&D iteration process.

# **OUR DIVERSIFIED PRODUCTS AND SOLUTIONS**

As we advance our technology development with greater complexity and deeper integration into application-specific solutions, we offer a diversified portfolio of image sensors, display products, analog ICs, and other semiconductor components. These innovations power electronic devices that have become integral to—and enhanced—our daily lives. By leveraging our strong design capabilities and collaborations with third-party foundries across our three core business lines, we continuously expand our leading-edge product offerings, that cater to various end markets, including automotive and smartphones. We firmly believe that our products are critical to the functionality of smart devices and play a pivotal role in enabling seamless human-device interactions.

Advanced Digital Imaging Solutions. We offer a diverse range of image sensor solutions, including CIS, miniature image module package (CameraCubeChip®), LCOS and ASIC products. These solutions serve end customers across a wide variety of industries such as consumer electronics, automotive, medical, surveillance and in emerging markets (machine vision, smart glasses, and Edge AI).

*Display Solutions.* We offer a wide range of display driver products, including LCD-TDDI, OLED DDIC, and TED, which are widely used in smartphones, and PCs. We are also continuing to invest in the development of automotive display driver solutions to introduce automotive TDDI products that meet mainstream market demand specifications.

Analog Solutions. We design and develop a complex and diversified analog semiconductor portfolio anchored by advanced PMIC, which are essential for managing power distribution and efficiency in electronic systems. In addition to PMICs, our product lineup includes other discrete semiconductors such as TVS and MOSFET. These analog semiconductor products and solutions are widely used across consumer electronics, surveillance, telecommunications, automotive, and in other industrial applications. In addition, we design various analog ICs for automotive applications in vehicles, featuring automotive-grade specifications and a versatile supply chain.

*Semiconductor Distribution.* In addition to our three principal business lines, we have built one of the largest semiconductor distribution networks in China, which not only broadens and deepens our customer engagement but also provides valuable insights into next-generation product development. Through close partnerships with OEMs, ODMs, and semiconductor solution providers, we extend our vertical reach and drive greater adoption of our semiconductor solutions.

#### **OUR GROWING MARKET OPPORTUNITIES**

With 30 years of industry experience, we have established leading-edge technology capabilities that underlie our comprehensive product offerings, making us one of the few semiconductor solution providers with a significant presence across all major verticals, including in smartphone, automotive, medical, surveillance, and emerging markets (machine vision, smart glasses, and Edge AI):

#### **Smartphone**

Our advanced image capturing technologies allow users to capture high-quality still and video images while maintaining high standards of performance. We have developed a full suite of core technologies from pixel architectures to image capturing technologies, along with our PureCel<sup>®</sup> and PureCel<sup>®</sup>Plus technologies for wafer-level camera modules. We are developing high resolution image sensors which are widely used by renowned smartphone brands for their flagship models, while striving to strengthen our competitive edge in pixel miniaturization and image resolution.

Additionally, we remain committed to delivering industry-leading display and analog solutions, continuing to invest in R&D across key technology areas to drive ongoing innovation. Our TDDI technology has seen increasing adoption by smartphone manufacturers, further solidifying its position in the market. Meanwhile, our newly developed OLED DDIC products have been successfully tested and approved by downstream customers, underscoring our strategic positioning for future growth in display technologies. In recent years, demand for higher battery capacity and faster charging in the smartphone market has grown at an impressive pace. Our analog solutions help customers better address challenges related to power density and power management, enabling more efficient and high-performance devices.

We are actively optimizing our product and supply chain structures to strengthen the competitiveness of our smartphone product portfolio. For example, our flagship high-end image sensor featuring 50MP resolution and a 1.2  $\mu$ m pixel size has been widely adopted as the main rear camera sensor in leading high-end smartphones in the domestic market. This success has driven a significant breakthrough in our market share within the high-end smartphone segment, providing sustained momentum for the continuous improvement of our product value and profitability.

According to Frost & Sullivan, the global smartphone CIS market is expected to grow at a CAGR of 3.6%, from US\$13.0 billion in 2024 to US\$15.5 billion by 2029. We are the world's thirdlargest smartphone CIS provider, with a market share of 10.5% based on revenue from smart phonerelated digital imaging solutions in 2024, according to Frost & Sullivan. We are committed to continuing our efforts to capture a growing share of this market.

#### Automotive

The market for automotive image sensors has experienced significant growth in recent years, reflecting a trend that is expected to continue in the foreseeable future. According to Frost & Sullivan, the global automotive CIS market grew from US\$1,377 million in 2020 to US\$2,499 million in 2024, representing a CAGR of 16.1%, and is expected to reach US\$7,028 million in 2029, representing a CAGR of 23.0% from 2024.



Usage of CIS solutions in smart vehicles

Higher automotive image sensor attach rates were being directly driven by the ever-expanding technological applications and legal mandates around the globe, as well as the trends of electrification and intelligence transformation. Beyond traditional RVCs, the demand for all-around interior and exterior monitoring and viewing capabilities also became an unequivocal necessity. Through the development and implementation of ADAS and in-cabin monitoring systems, cars were expected to advance in safety and reliability. CIS are a critical component of such systems. According to Frost & Sullivan, the global average number of CIS per new vehicle increased from 2.2 in 2020 to 3.4 in 2024, and is projected to reach 8.0 by 2029. Certain automotive OEMs are also actively pushing for the increased adoption of cameras in EVs, specifically for their autonomous driving features and smart cockpit functionalities. There are flagship models equipped with as many as 10 to 14 cameras to support such advanced systems. China is playing a leading role in the development of the global automotive industry. China's share of global vehicle production is expected to rise from 33.8% in 2024 to 43.7% by 2029, according to Frost & Sullivan. The advancement of EVs and ADAS in China has significantly driven demand for automotive CIS. As autonomous driving functions continue to evolve and become more widespread, the number of cameras per vehicle is expected to increase steadily. In addition, in-cabin applications such as facial recognition and gesture recognition are further contributing to the growing demand for CIS in China. According to Frost & Sullivan, the average number of CIS per new vehicle in China is expected to increase from 4.1 in 2024 to 9.2 in 2029, which are higher than the global average.

We are the world's largest automotive CIS provider with a market share of 32.9% based on revenue from automotive-related digital imaging solutions in 2024, according to Frost & Sullivan. We supply high-performance automotive image sensors to automotive manufacturers globally. From the early stages of the development cycle, we collaborate closely with leading automotive manufacturers and key players in the supply chain to ensure that our products optimally aligned with their requirements and specifications. Our robust, compact and advanced automotive CIS solutions support a wide range of applications, including ADAS, in-cabin monitoring, e-mirrors, dashboard cameras, rear and surround views, and panoramic imaging, among others.

We also offer LCOS products, which play a critical role in enabling HUD applications. HUD systems enhance driver operation and improve driving safety by projecting key information directly

into the driver's field of view—typically onto a transparent, reflective surface such as a windshield. In automotive AR-HUD applications, LCOS, as a reflective display technology, offers superior light transmittance and higher thermal resistance. This results in better performance and enhanced driver safety. With continued advancements in LCOS technology, our LCOS products have already achieved mass production and are being delivered for use in automotive AR-HUD systems.



Set forth below is an illustrative picture of our LCOS products applied in AR-HUD systems

We also continue to leverage our strong analog expertise to expand into broader automotive analog markets, such as CAN/LIN, SerDes, PMIC, and SBC, to provide a comprehensive solution. For example, we offer PMICs, which are critical for managing power distribution in advanced vehicle systems. Our PMICs are engineered to optimize power distribution, ensuring that energy is delivered precisely where and when it's needed across increasingly complex automotive architectures. Meanwhile, our MCUs provide the intelligence and control necessary to manage these power flows, enabling real-time decision-making and system responsiveness.

We believe our established technology capabilities, robust IP portfolio and long-term track record of providing feature-rich, comprehensive solutions to automotive manufacturers position us well to maintain a leading position and capture greater opportunities in the rapidly growing automotive market.

# Medical

The market for endoscopic imaging solutions in the medical field is growing rapidly, driven by the increasing demand for minimally invasive diagnostic and therapeutic procedures. According to Frost & Sullivan, the global medical CIS market grew from US\$150 million in 2020 to US\$416 million in 2024, representing a CAGR of 29.1%, and is expected to reach US\$1,240 million in 2029, representing a CAGR of 24.4%. Technological advancements have also shifted the industry away from traditional components such as rod lenses, fiberscopes, and CCD image sensors, toward CMOS-based, chip-on-tip image sensors to reduce costs while enhancing performance.

We offer a complete, end-to-end medical imaging subsystem. This enables medical device manufacturers to focus on developing innovative core endoscope and catheter designs, while

accelerating time-to-market and reducing overall development costs. Our advanced, patented medical imaging solutions position us as leaders in addressing the evolving technological demands of the medical field. One of the most pressing challenges facing the industry today is the risk of cross-contamination due to improperly cleaned reusable endoscopes. To address this critical issue, our CameraCubeChip<sup>®</sup> technology enables the development of single-use, disposable imaging modules for endoscopic and catheter-based procedures. The resulting solution offers a safe, hygienic, and cost-effective alternative to traditional high-cost, glass lens-based systems—without compromising on image quality.

# Surveillance

Surveillance represents a broadly utilized vertical for CIS application, driven by the proliferation of intelligent ecosystems such as smart home, smart community, computer vision and smart manufacturing. CISs are used both in consumer applications, such as home security systems, doorbell cameras and motion activated cameras, as well as in large-scale applications, such as public transportation and office buildings. The CISs used in these applications are also advancing to higher sensitivity, lower power consumption, and built-in AI functionality, which are features that could be tailored to cater to specific needs of each scenario.

As consumers demand smarter and more capable home security solutions, the bar for performance in intelligent surveillance systems continue to rise. Our Nyxel<sup>®</sup> near-infrared technology, built on our PureCel<sup>®</sup>Plus pixel architecture, enables surveillance cameras to capture clearer, more detailed images at greater distances in low-light conditions, all while consuming less power. In addition, we continue to lead in delivering energy-efficient power management solutions and optimal interface protection products designed for surveillance applications. Our high-resolution, low-power, and high-sensitivity image sensors have earned widespread market recognition for their performance and reliability.

# **Emerging Markets**

*Machine Vision*. Machine vision simulates human visual perception through optical components, equipping automated production lines and industrial robots with environmental awareness. This enables them to respond in real time and perform highly precise tasks. The machine vision market has seen strong demand for 3D cameras and CIS as CMOS technology significantly simplifies the design and reduces the complexity of industrial cameras. Compact imaging solutions— including smart cameras—are easier to integrate and better suited for a wide range of industrial environments. To better align with the evolving needs of the machine vision market, we have established a dedicated machine vision division. This team will focus on developing innovative solutions for industrial automation, robotics, humanoid robots, logistics barcode scanning, and ITS.

*Smart glasses*. Emerging markets such as smart glasses hold significant growth potential, driven by global trends in smart technology adoption and the integration of VR into various industries. We are committed to supporting this growth by delivering cutting-edge imaging and sensing solutions to a global customer base. Our global shutter technology enables terminal devices to perform advanced functionalities such as eye tracking and SLAM. Our image sensor products, designed with compact size and low power consumption in mind, are well-suited to meet the specific requirements of smart glasses manufacturers. Furthermore, our LCOS products—offering high resolution, a compact form factor, low power usage, and cost-effectiveness—enhance the affordability and practicality of smart glasses solutions, further driving their adoption in these emerging markets.

*Edge AI.* Over the past decade, the rapid development of mobile networks and the widespread adoption of smart devices have been key drivers of significant innovation and growth in the semiconductor market. The evolution of IoT and wearable electronics — into intelligent, multifunctional tools deeply integrated into daily life — has accelerated advancements in cutting-edge semiconductor technologies. With the rapid deployment of AI and AI enabled applications, this is accelerating the development and adoption of more intelligent terminal devices by consumers. This is also driving strong growth in social media, entertainment and sport platforms— by way of examples— that relies heavily on leading digital technology, including the most advanced CIS technology to deliver enhanced user differentiated experiences.

# OUR RECENT ACHIEVEMENTS SUPPORTED BY ADVANCED TECHNOLOGY CAPABILITIES

Leveraging strong foundation and deep expertise in core technologies, extensive IP portfolio, and manufacturing process platform developed in collaboration with leading global suppliers, we have created a comprehensive suite of industry-leading, award-winning technologies. Below are the latest updates progress across various verticals.

In the smartphone CIS sector, we are the world's third largest smartphone CIS provider, with a market share of 10.5% based on revenue in 2024 according to Frost & Sullivan. Notably, we introduced the OV50X image sensor in April 2025 for flagship smartphones, which harness the capabilities of LOFIC to provide single exposure HDR regardless of lighting conditions.

In the automotive CIS sector, we are the world's largest automotive CIS provider with a market share of 32.9% in 2024 based on revenue from automotive-related digital imaging solutions, according to Frost & Sullivan. The increasing prevalence of ADAS and autonomous driving has raised higher demands for LFM, HDR, and high-resolution image sensors. For example, the pulsed lighting of LED traffic lights poses a severe challenge to many imaging solutions, preventing ADAS and autonomous driving systems from correctly detecting illuminated traffic signs. We address this issue with TheiaCel<sup>®</sup> technology, which leveraged the functionality of next generation LOFIC and the reliable strength of our other proprietary HDR technologies (such as patented DCG technology). Our TheiaCel<sup>®</sup> DCG+LOFIC solution achieved a wider dynamic range in single-exposure HDR images.

Notably, our OX08D10 is our 8MP CIS with TheiaCel<sup>®</sup> technology, pre-integrated and validated with color tuning on the Snapdragon Ride<sup>TM</sup> Platform, Snapdragon Ride<sup>TM</sup> Flex SoC and Snapdragon<sup>®</sup> Cockpit Platform from Qualcomm Technologies, Inc. for next-generation ADAS and AI-enabled connected digital cockpits. Following the successful launch of the OX08D10, we introduced the new OX05D10 5MP CIS with TheiaCel<sup>®</sup> technology, and the OX12A10 12MP-resolution CIS which is designed to meet next-generation ADAS and autonomous driving machine vision requirements. We further launched the new 3MP-resolution OX03H10 CIS – our 3.0 $\mu$ m pixel automotive viewing sensor with TheiaCel<sup>®</sup> technology

In the medical CIS sector, we launched the new OCH2B30 camera module in June 2024, for 3D intraoral dental scanners. As intraoral scanners gradually replace traditional dental impressions, we are committed to applying our mature technology from the medical endoscope field to intraoral scanners, providing ultra-small camera modules to promote their application in dentistry.

We established a new machine vision department in 2024. We released the OG09A10 in April 2024, our large-format global shutter solution for factory automation and ITS, based on our patented

PureCel<sup>®</sup>Plus-S stacked-die architecture. We also released our total camera solution, comprising the OG02B10 color global shutter image sensor and OAX4000 ASIC ISP. In addition to the above, we introduced the OG05B1B and OG01H1B sensors with 2.2µm BSI pixels, and the OG02C10/1B, OG03A10/1B, and OG05C10/1B sensors with 3.45µm BSI pixels.

In terms of Edge AI, we launched the new OP03050 and the new OG0TC BSI global shutter image sensor in July 2024, enabling eye and face tracking in AR/VR/MR consumer headsets and glasses. This is our first application of proprietary DCG<sup>TM</sup> HDR technology in a 2.2 $\mu$ m pixel image sensor for the AR/VR/MR market.

# **OUR STRENGTHS**

We are a top 10 global fabless semiconductor company providing a broad spectrum of cuttingedge solutions

# Market leadership

We are a top 10 global fabless semiconductor company primarily focusing on advanced digital imaging, display and analog solutions for multiple applications and industries. In particular, we are a pioneer in advanced digital imaging technology. According to Frost & Sullivan, we are the third largest CIS providers and the top automotive CIS provider globally, as well as the largest CIS provider in China, by revenue in 2024. We are also a pioneer in the world to commercialize BSI technology for the CIS industry.

We have maintained a strong commercial presence and market leadership across multiple endmarkets. According to Frost & Sullivan, we were the world's third largest smartphone CIS provider with a market share of 10.5% and the largest automotive CIS provider with a market share of 32.9% based on revenue in 2024.

With accelerated growth in automotive CIS business driven by adoption of autonomous driving technology, we continue to enhance our position as the leading global automotive CIS supplier which, in turn, provides a strong feedback loop to our innovation capabilities.

# Broad product portfolio and extensive application-specific integrated solutions supported by a robust IP foundation

Our journey began with a focus on image sensors and ASIC products, which laid the foundation for our technological expertise. With 30 years of industry experience, we have built a strong, diversified product portfolio encompassing advanced digital imaging, display, and analog semiconductor solutions. Our robust and continuously expanding IP portfolio enables us to further enhance our existing product lines while strategically expanding into new verticals, ensuring sustained innovation and growth. Today, our solutions address a wide spectrum of applications, enabling us to serve a broader customer base and deliver greater value across industries.

As we build up an extensive suite of solutions, we are able to achieve significant synergies and efficiencies across our product lines, leveraging our strong and diversified IP portfolio. As of December 31, 2024, we held 4,865 authorized patents, including 4,659 invention patents, 204 utility model patents and two design patents, as well as 135 layout designs and 83 software copyrights. Our core IP catalog is focused on three aspects, namely image, interface and power management, all of which consist of modularized IPs which can be readily assembled into integrated solutions.

Building upon the strengths of our market position in the smartphone and automotive markets, we are expanding our portfolio of application-specific integrated solutions centered around CIS. For instance, in the automotive sector, we integrate our advanced digital imaging products with ISPs and ASICs. This enables us to process the signals captured by the sensors and deliver optimized data to support AI algorithms. As part of our broader strategy to enhance our integrated solution capabilities, we are also investing in PMICs and MCUs designed for automotive applications. These efforts allow us to offer more comprehensive system-level solutions, helping our customers streamline design processes while strengthening our value proposition and allow us to drive cross-selling opportunities.

#### Solutions catered to our customers' specific needs

Recognizing that every vertical has application-specific requirements that cannot be addressed by a one-size-fits-all solution, we have dedicated solution development teams that collaborate closely with supply chain partners and customers to understand their challenges and deliver a wide range of technology solutions. We maintain strong customer relationships by engaging with them at an early development stage, ensuring that our solutions align with their product roadmaps and are designed to meet their specific needs.

#### We have established technology leadership and superior innovation capabilities

We are a global leader with deep technology expertise and innovation capabilities. To maintain this leadership position, we continuously develop and expand our patent portfolio, strengthening our core technology stack and extending protection to emerging technologies that complement and enhance our core business. As of December 31, 2024, we held 4,865 authorized patents, including 4,659 invention patents, 204 utility model patents and two design patents. The number of patents we hold is a testament to our commitment to innovation. To further improve the effectiveness of our technology innovation and enhance quality control to supplement our outsourced testing processes, we have also established in-house final testing facilities, which enable us to obtain timely feedback on product performance, enhance the efficiency of our R&D process, and deliver improved innovation to our customers.

Our technological and innovation capabilities are evident across our portfolio of advanced digital imaging solutions, display solutions and analog solutions. For example, we hold a strong patent portfolio for image sensing, signal processing, optics and projection technology, which enables us to design sophisticated advanced digital imaging solutions. In the fields of mobile TDDI and DDIC, we also possess an advanced set of proprietary technologies which enables us to serve customers' varying touch-display requirements.

We have also successfully deployed our products across multiple end markets and have also led technological advancements in each, as described below.

# Smartphone

We have developed a full suite of core technologies from pixel architectures to advanced image capturing technologies, along with our PureCel<sup>®</sup> and PureCel<sup>®</sup>Plus technologies for wafer-level camera modules. Through product differentiation and continued investment in research and development in recent years, we are surpassing major industry players with our advancing technologies for smartphone CIS for features such as pixel miniaturization and image resolution.

Our OV50X, launched in April 2025, is an image sensor designed for flagship smartphones with TheiaCel<sup>®</sup> technology, which harnesses the capabilities of LOFIC to provide single-exposure HDR regardless of lighting conditions.

# Automotive

Leveraging our strong technological capabilities, we have developed a strong portfolio of products for the rising smart automotive industry, a sector characterized by high technical barriers and strict qualification and certification processes. With about 20 years of experience in servicing the automotive vertical, we offer a comprehensive suite of imaging solutions for ADAS, e-mirrors, surround-view cameras and other automotive viewing applications.

We are continuously driving innovation by pioneering next-generation solutions in the automotive space. We began mass production of our automotive CIS in 2005, introduced an automotive HDR SoC image sensor in 2008, and launched our first-generation Big Pixel technology in 2009. In 2018, we introduced our initial Depth of Field technology. Our OX01A, introduced in 2017, was among the first globally available sensors to deliver LED flicker mitigation at mass production scale.

We lead the market with deep expertise in emerging auto-related technologies, such as splitpixel technology which effectively mitigates LED flickers, and our proprietary HALE combination algorithm represents a cutting-edge solution to simultaneously achieving HDR and LED flicker mitigation performance, delivering high image quality for automotive viewing applications across all lighting and weather conditions.

In October 2024, we launched the OX12A10 12MP resolution CIS. It was our first 12MP image sensor to feature OMNIVISION's 2.1  $\mu$ m TheiaCel<sup>®</sup> technology, which harnessed the capabilities of next generation LOFIC, together with OMNIVISION's DCG<sup>TM</sup> HDR technology, to eliminate LED flicker regardless of lighting condition.

# Medical

We have developed disruptive products that integrate advanced image sensing and processing capabilities into single-chip solutions, based on our proprietary CameraCubeChip<sup>®</sup> technology. By innovatively combining wafer-level optics with CIS technology—while maintaining low-light sensitivity—we deliver ultra-small camera modules that offer outstanding performance in medical applications such as endoscopy.

# Surveillance

For the surveillance sector, we have successfully developed the OS02H10 product based on our high quality NIR and ultra-low light technology, namely Nyxel<sup>®</sup>, built on our PureCel<sup>®</sup>Plus pixel architecture. Our Nyxel<sup>®</sup> NIR technology brings quantum efficiency to the product, significantly increasing NIR sensitivity and hence allowing our OS02H10 to see better and farther in low light while consuming less power.

# Emerging Markets

For machine vision, we address the significant demand for 3D cameras and CIS by simplifying industrial camera complexity. To better adapt to this market, we established a new machine vision

department in 2024, focusing on innovative solutions for industrial automation, robotics, logistics barcode scanners, and ITS. Leveraging our robust technical expertise in Nyxel<sup>®</sup>, BSI, and global shutter technologies, we introduced groundbreaking innovations to the industry.

Also smart glasses have high growth potential due to global trends in smart technology and VR integration. Our global shutter technology plays a key role in smart glasses applications such as eye tracking and SLAM. Our image sensor products, with their small size and low power consumption, are ideal for smart glasses needs, and our LCOS products further enhance economic adaptability and feasibility. Leveraging such technology capabilities, we launched the OG0TC BSI global shutter image sensor in July 2024, enabling eye and face tracking in smart glasses applications. OG0TC1B in June 2024, a BSI global shutter image senor for eye and face tracking in smart glasses applications.

We deliver advanced image-system solutions designed for Edge AI applications, empowering our customers to stay at the forefront of imaging technology through our commitment to innovation and forward-looking solutions.

# Long-term relationships with a robust customer base supported by leading products and solutions that demonstrate superior performance, achieve high cost efficiency, and accelerate time to market

With 30 years of commitment to technological advancement, our integrated image sensors and solutions are designed to provide high image quality and superior performance while maintaining cost efficiency. For example, with our breadth of analog product offerings, our customers can also tailor their designs with ready-made solutions, significantly shortening their time to market. In addition, we have long-term, deep relationships with the world's leading technology players and key ecosystem stakeholders, achieving top-of-mind brand awareness and strong market recognition globally. Our demonstrated track record of technology leadership, high-performance product offering, diversified product portfolio, on-time deliveries have built a strong brand recognition for us and enabled us to accumulate a broad blue-chip customer base across a variety of verticals. Our products have been widely adopted by many of the world's leading smartphone OEMs and ODMs, automotive manufacturers, major notebook OEMs and ODMs, surveillance equipment makers, medical device companies, and a variety of consumer electronics brands. Notably, our solutions have entered numerous flagship smartphone models and premium automotive platforms from globally recognized names, underscoring our role as a trusted partner in driving innovation.

# Superior performance

We integrate distinct functions into a single CIS, including image capture and processing, color processing, signal conversion and output of images for digital and analog equipment respectively. We have developed a number of proprietary technologies to enhance image quality by increasing our image sensors' sensitivity to light and significantly improving their signal to noise ratio. These methods allow us to reduce the size of each individual pixel and thereby increase the number of pixels in an image sensor without increasing its size or power consumption, hence achieving an optimal mix across various product features.

# Cost efficiency

Our image sensors are designed to achieve a high level of functionality in a single chip while continually reducing the overall size of the device. Their functionality, coupled with their adaptability

to be used in a wide range of applications, expands the market to which they are sold, and consequently optimizes our customers' production costs. This flexibility is further enhanced by our diverse product mix, where our customers could select the right product according to their requirements—allowing for greater cost efficiency. Our strategic focus on cost efficiency is also embedded in our display solutions business. For example, the integration of display and touch into a single chip allows our customers to produce thinner and lighter display panels at a lower cost. Similarly, our analog products have a proven track record in addressing our customers' common needs in a highly cost-effective manner. Moreover, the production processes of our products are designed to allow for efficient ramp up of production volumes to gain economies of scale and attain cost efficiency, the benefits of which are in turn passed on to our customers as well.

#### Accelerated time to market for our customers

The highly integrated nature of our image sensors simplifies the design of cameras and allows our customers to shorten their product design cycles. We also work closely with them to further reduce their time to market by providing camera reference designs, engineering design review services, customer product evaluation, as well as testing and debugging services. Leveraging our flexible design and high-quality, stable supply chain, our display solutions are also designed for easy deployment and qualification, and have helped leading panel manufacturers speed time to market.

Throughout the years, we have formed long-standing relationships with technology leaders across different verticals. To maintain and service our customers, we work closely with them from the early stages of their product development cycles, including strategic decision-making, new product design and replacement design to help them develop a logical technology migration path and to ensure that our products meet their future design needs. In this respect, our three principal business lines are synergistic and enable us to provide diversified technology solutions that enhance our value proposition to our customers.

Our long-standing partnerships and involvement throughout our customers' product development processes further allow us to keep abreast of major innovation trends and developments, better understand and gain insights into our customers' systematic requirements more efficiently and hence develop advanced solutions targeting the relevant industry's unmet needs. Our distribution business helps us maintain close partnerships with an extensive range of OEM and ODM customers and further broadens our vertical outreach, which in turn contributes to the promotion of our own products. In addition, we are also able to gain deep visibility into customers' technology roadmaps and foresight into industry trends, which inspire our R&D efforts, develop in-trend products and guide our M&A initiatives.

Through such proactive collaborations, we believe we can better anticipate customers' future design needs and help them speed up their product development time, which in turn will better position us in pursuing further design wins.

# A fabless model with scalable operations supported by our long-term partnerships with leading foundry partners

We adopt a fabless manufacturing strategy, which minimizes our capital requirements, optimizes operating expenses and accelerates our time to market. This in turn enables us to focus and devote our resources to developing our core competencies in research and development, technological

innovation, and product design. Moreover, given that we have one of the most diverse and expansive image sensor product portfolio among global leading companies, our products may have different manufacturing requirements, where certain sophisticated application-specific products may require more precise and advanced manufacturing capabilities. Our fabless model hence gives us the flexibility to partner with different reputable and reliable foundries according to our manufacturing needs, allowing us to tap into their existing state-of-the-art facilities, cutting-edge manufacturing technologies, established production efficiency and quality assurance. This reduces our time to market and gives us a strong competitive advantage, particularly in the consumer electronics vertical where technology evolves rapidly.

To sustain this advantage, we have forged stable long-term relationships with leading global front and back-end manufacturing players worldwide. Our established market leadership cements our position as a key client to our business partners, which has been a critical factor behind our ability to maintain a stable supply and resilient supply chain. In addition to outsourcing certain testing processes, our in-house final testing facilities allow us to establish an effective product-test-feedback loop, enhancing quality control and providing a capacity buffer in addition to outsourced testing processes.

# We have an experienced and established team with strong industry and technical knowledge and expertise

We are led by a team with deep, long-term experience in the semiconductor industry, with an average of more than 20 years of relevant industry experience. Our management team holds a proven track record of operating in fast-paced, innovation driven cultures, has skillfully executed our business transition strategies, and has successfully led multiple major M&A transactions and the subsequent business integration.

Our chairman, Mr. YU Renrong, is widely recognized as a pioneer and leader in the semiconductor industry. Owing to his strategic vision and deep market expertise, we have grown and developed into the global leading semiconductor company that we are today under his leadership.

We have deep technology expertise with a strong R&D focus. Our technology and R&D personnel account for nearly half of our total headcount, more than half of whom hold a master's or higher degree. We have a team of FAEs with strong technical expertise and service capabilities. They have an in-depth understanding of our products' features and performance and technical parameters, which allows them to help speed up adoption of our products in the market. With downstream electronic product manufacturers, our FAEs provide a variety of application solutions based on such customers' R&D needs, which helps reduce our customers' development costs and accelerates their own product development cycles. This allows customers to focus their resources on production and marketing, while also helps us better align our product development with actual market needs.

# **OUR STRATEGIES**

We commit to maintaining our position as a top 10 global fabless semiconductor company. Key elements of our strategy include:

# Continued strong investment in R&D in key technologies to further enhance our innovation capabilities

Strong R&D investment remains a core strategic priority for our long-term growth. We continue to increase R&D efforts to ensure the leadership of our proprietary core technologies and to transform these core technologies into a product portfolio that meets broad market demand.

We will increase investment in critical technologies, committing to the long-term technological advancement in advanced sensing technologies. We intend to maintain our leading position in advanced digital imaging technology, enhance our solution-based technologies across multiple applications, and continue to propel our innovation capabilities forward. Furthermore, we will continue to drive breakthroughs in display technology, upgrade our analog solutions portfolio, and actively integrate emerging technologies such as intelligence into the application of our core product portfolio.

We believe that a global leading talent team forms the foundation of our ability to continuously drive innovation in developing new technology solutions. We will continue to implement our talent strategy, recruiting semiconductor professionals with extensive industry experience around the world. In addition, we will attract and retain talent through comprehensive training and development programs, as well as competitive incentive mechanisms.

As a globally positioned semiconductor company, we will continue to establish R&D centers in close proximity to major customers worldwide, enabling us to comprehensively and promptly understand their needs and strategic plans, and to deliver high-quality technologies and solutions.

# Deepen our presence in target markets, continuously enrich our product portfolio and solutions, and further support and extend our market leadership position

We will develop our products and solutions to meet customers' current and future needs, offering a broad portfolio of high-quality, high-performance, and cost-effective products while exploring additional applications in our target markets. At the same time, we will continue to explore downstream application scenarios and provide solutions across a number of verticals. Owing to the scalability of our platform-based technologies and products, we will continue to launch more advanced image and vision sensing solutions for various smart terminals, including medical, smart glasses and robots, and actively expand into other emerging markets such as industrial automation. In the automotive sector, we continue to drive innovation with high-performance image sensor solutions for comprehensive intelligent driving and intelligent cockpit applications, whilst enriching our portfolio of in-vehicle analog and display driver products. In consumer electronics, we will advance our high-end strategy and utilize our advanced technological advantages to fully penetrate the market, iterating high-performance image sensors designed for mainstream smartphone models and action cameras, featuring higher MP, larger-sized optical format, HDR shooting and more functions.

As we continuously expand our product portfolio and application scenarios, our customer base will steadily grow. We will deepen long-term partnerships with global and leading customers across multiple verticals, actively engage in their product development cycles, and create more cross-selling opportunities to end customers. Through these efforts, we aim to steadily increase our market share in global major verticals and among major customers.

# Optimization of the opportunities being created by the broadening of our product portfolio and the resulting efficiencies across our platform

We will continuously advance the integration of our product lines to achieve comprehensive product portfolio coordination and synergistic development in business planning, thereby driving cross-selling opportunities to our customer base and enhancing our global operational efficiency.

Specifically, our strong R&D investment and extensive product portfolio are enabling us to more comprehensively address our customers' increased requirements, particularly as system

complexity grows. At the same time, we are able to leverage the collaborative strengths of R&D teams across product lines in project development and product definition, continuously improving R&D efficiency. In addition, we will also capitalize on other operational efficiencies in sales and marketing, as well as across our supply chain, further supporting our overall business performance.

# Continue to strengthen our engagement and collaboration with key stakeholders across our network and ecosystem

As we broaden our product portfolio to extend our addressable end markets, our role across the ecosystem continues to grow. Deep relationships with players across our ecosystem is critical to our technological innovation and long-term success. We intend to continue to deepen our cooperation with key stakeholders as part of our strategic focus on delivering leading innovation to customers and operational efficiency across our platform. This includes strengthening customers relationships through early and substantive engagement, which, in turn, drives improved innovation across application scenarios.

Together, we these capabilities will create a powerful pull-through effect, reinforcing our leadership in CIS while expanding our value proposition across our addressable market.

# Selectively conduct industry chain integration and strategic mergers and acquisitions

We will further expand our addressable markets through mergers and acquisitions (M&A) and investments, with a focus on targets that create synergies with our existing product portfolio and support horizontal expansion into emerging markets.

Building on our proven success in scaling operations through acquisitions, we will continue to seek and assess potential strategic M&A targets and industry consolidation opportunities that may allow the creation of strong synergy in terms of technology, intellectual property (IP), product and solution offerings, supply chains, customer bases, and long-term growth opportunities.

# **OUR EVOLUTION**

Since our founding, our long-term vision has been to establish a global fabless semiconductor company at the forefront of technological innovation. We strive to develop and deliver advanced digital imaging, display, and analog solutions for a wide range of applications across multiple industries. Over the years, our business strategy has centered on identifying industries and customers with significant unmet needs, where our technology can address critical application challenges. This approach has enabled us to consistently innovate, refine, and apply our technological capabilities, driving organic growth and expanding our reach through strategic acquisitions. As a result, we have successfully evolved our business while maintaining a leadership position in the semiconductor industry. In May 2017, we went public with our A Shares listed on the Shanghai Stock Exchange, marking a significant milestone in our growth. The acquisition in 2019 of OmniVision Technologies, one of the world's leading image sensor companies, further bolstered our market position and marked the beginning of a new era in our business development. In November 2023, we successfully listed GDRs on the SIX Swiss Exchange, enhancing our access to international capital markets. On June 11, 2025, we changed our corporate name to Omnivision Integrated Circuits Group Inc. (豪威集成電路(集 團) 股份有限公司), which embodies our creative brand-led and world-leading digital imaging business, while also representing the deep heritage of our group. We believe our new corporate name represents a strong and distinct corporate identity, which comports with the trajectory of our corporate

reinvention, which has always been on the intersection of business insight and technological innovation—a commitment that continues to guide us today.



The following chart sets forth our key development milestones since our founding:

# **OUR FABLESS BUSINESS MODEL**

We employ a fabless manufacturing strategy, allowing us to concentrate on the design and sales of semiconductor products and solutions while collaborating with world-leading suppliers for wafer fabrication, packaging, and testing. At the core of our business is semiconductor design, which involves the complex translation of design requirements and features into a specific physical circuit layout. Key steps in this process include system specification, code writing, circuit design, simulation and verification, after which our design is implemented through outsourced wafer fabrication, probe testing, packaging and other back-end processes.

The flowchart below illustrates our fabless business model:



Note:

(1) We have also established in-house final testing facilities, through which we are able to obtain timely feedback on product performance, and establish an efficient R&D iteration process.

We have maintained long-standing partnerships with world-leading foundries, collaborating closely to leverage state-of-the-art facilities. After completing a design, we submit the layout to our foundry partners for mask generation, which produces the photomasks. Once the photomasks are fabricated and verified, our designs move into the wafer mass production process. During this stage, the foundry transfers the circuit patterns from the photomasks onto the wafer die using advanced processes such as lithography, doping, sputtering, and etching to form the IC.

While we outsource both front-end and back-end manufacturing, packing and testing processes, we also maintain in-house final testing facilities. This allows us to establish an effective product-test-feedback loop, which enhances quality control, strengthens our design expertise, and provides a capacity buffer in addition to outsourced testing processes.

We believe our fabless model significantly reduces capital requirements, operating expenses, and time to market. This enables us to focus our resources on advancing our core competencies in research and development, technological innovation, and product design, ensuring we remain at the forefront of the industry.

# **OUR KEY FINANCIAL DATA**

We derive the majority of our revenue from our semiconductor design and sales business, delivering advanced digital imaging solutions, display solutions, and analog solutions for a wide variety of consumer and industrial applications, including in the automotive, smartphone, medical, surveillance and emerging markets.

The following table sets forth a breakdown of our revenue among semiconductor design and sales business, semiconductor distribution business and others during the Track Record Period, both in amounts and as percentages of total revenue, for the years indicated:

	For the year ended December 31,					
	2022		2023	3	2024	4
	RMB	% (in mi	RMB llions, except	% for perce	RMB ntages)	%
Advanced digital imaging solutions	13,674.5	68.3	15,535.5	74.0	19,190.2	74.7
Display solutions	1,470.5	7.3	1,250.4	6.0	1,028.2	4.0
Analog solutions	1,262.4	6.3	1,154.4	5.5	1,422.0	5.5
Semiconductor design and sales business	16,407.4	81.9	17,940.3	85.5	21,640.4	84.2
Semiconductor distribution business	3,564.8	17.8	2,970.1	14.2	3,938.9	15.3
$Others^{(1)}  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  $	68.0	0.3	73.9	0.3	127.5	0.5
Total	20,040.2	100.0	20,984.3	100.0	25,706.8	100.0

Note:

(1) Primarily including income from technical service.

The table below sets forth the amounts and percentages of our revenue from within and outside Mainland China for the years indicated:

	For the year ended December 31,						
	2022		2023	2023 202		24	
	RMB	% (in mi	RMB	% for perce	RMB ntages)	%	
Mainland China <sup>(1)</sup>	3,353.7	16.7	2,920.3	13.9	3,844.4	15.0	
Outside Mainland China <sup>(1)</sup>	16,686.5	83.3	18,064.0	86.1	21,862.4	85.0	
Total	20,040.2	100.0	20,984.3	100.0	25,706.8	100.0	

Note:

(1) The revenues we report by geography are based on the location in which our reporting subsidiaries are located.

# OUR ADVANCED SEMICONDUCTOR PRODUCTS AND SOLUTIONS

We are a globally recognized leader in developing and supplying advanced digital imaging, display, and analog solutions that enhance human/device interactions across the automotive,

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#### **BUSINESS**

smartphone, surveillance, medical, and emerging technology sectors. Our comprehensive portfolio of semiconductor products and solutions is designed to transform how people connect with and through devices, creating seamless and exceptional experiences in everyday life—whether at home, at work, in the car, or on the go. Our offerings address our customers' interface challenges, empowering them to deliver innovative and differentiated products that stand out in competitive markets. As we build up an extensive suite of solutions, we are able to achieve significant synergies and efficiencies across our product lines, leveraging our robust and diversified IP portfolio. Our core IP catalog is focused on three aspects, namely image, interface and power management, all of them being modularized IPs which can be readily assembled into integrated solutions. Furthermore, our three principal business lines are synergetic and enable us to provide diversified technology solutions to our customers, enhance our value propositions. In addition, we have in the past acquired or invested in additional assets, technologies or businesses that are complementary to our existing business. For example, we acquired Hunan Silicon in March 2023, which specialize in mixed-signal IC designs, and TDDI business in 2020, both of which have enhanced our technological capabilities and synergies across our business lines. Many of our customers apply our semiconductor products and solutions across their operations to ensure consistent, high-quality output and optimal experience for their end users. Our customers also typically expand their procurement to a wider range of solutions offered by our multiple business lines as they seek to leverage the efficiency and synergies across our diversified portfolio.

<b>Business Line</b>	Product Type	Key Function	Primary Application
Advanced digital imaging solutions	CISs	Important components of digital cameras, converting optical signals to electrical signals	Consumer electronics, automotive, medical, surveillance, smart glasses
	CameraCubeChip <sup>®</sup> products	Solutions that integrate wafer-level optical components and CISs using advanced chip-scale packaging technology, enabling image sensing, processing and single-chip output	Medical devices, IoT, eye tracking, smart glasses
	LCOS products	Compact micro displays delivering low-power, high-speed and single- chip solutions	Wearable electronics, mobile displays, micro projection, automotive, medical
	ASIC products	Supporting our CISs by bridging the cameras and the host; providing various solutions from USB/ parallel/serial ports to compression engine and low-power image processing	Automotive, surveillance
Display solutions	TDDI products	Single-chip solutions integrating display drivers and touch sensors; receiving image data output, powering LCD screen display and detecting touch signal to facilitate human/device interaction	Smartphones

The table below provides an overview of the key product types offered in our three principal business lines:

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Business Line	Product Type	Key Function	Primary Application
	DDIC products	Powering and controlling the display panels	Smartphones
	TED	high-performance eDP TCON and source driver combined in a single chip for small and medium-sized display panels; achieves high-speed data transmission	Notebook
Analog solutions	TVSs	Improving the anti-static and anti- surge current capability of the whole system	Consumer electronics, surveillance, network communication, automotive
	MOSFETs	Signal amplification, electronic switches and voltage control	Consumer electronics, surveillance, network communication, automotive, industrial
	Schottky diodes	Power rectification, current steering and wave cutting	Consumer electronics, surveillance, network communication, automotive, industrial
	LDOs	Over-current and over-temperature protection, precision reference, differential amplifiers and retarders	Consumer electronics, surveillance, network communication, automotive
	DC-DC converters	Voltage regulation (power switch) and effectively suppressing the harmonic current noises on the grid side	Consumer electronics
	LED backlight drivers	Constructing constant current source circuits to ensure stable brightness of the LED backlight	Consumer electronics
	Analog switches	Switching signals and functions	Consumer electronics, surveillance, telecommunication, automotive, industrial
	CAN chips	Enabling efficient implementation of reliable, fast, interoperable and flexible CAN protocol transmission networks	Automotive, IoT, surveillance, industrial
	LIN chips	Constructing simple, low-cost local area networks that complement existing automotive networks	Automotive, IoT, surveillance, industrial
	SBC	multifunctional chip that integrates characteristics such as power supply, communication, monitoring and diagnostics, and safety monitoring	Automotive, IoT, surveillance, industrial

# **BUSINESS**

Business Line	Product Type	Key Function	Primary Application
	MCUs	An intelligent semiconductor IC that consists of a processor unit, memory modules, communication interfaces and peripherals	Automotive, consume electronics

# **Advanced Digital Imaging**

We are a leading player in the image sensor industry and have continuously invested in research and development to further enhance the performance and enrich the features of our image sensors, serving a wide range of consumer and industrial scenarios. Our selected advanced digital imaging products launched since 2022 are summarized below.

CISs

Our selected CIS products by application verticals are set forth in the table below:

Application verticals	Products
Consumer Electronics	OV50X, OV50M40, OV05C10, OV02E, OV50H, OV08X, OV60B10, OVB0A, OV50E, OVB0B
Automotive	OX03H10, OX12A10, OX01J, OX01E20, OV60B10, OX05B, OX03D
Medical	OH02B
Surveillance	OS04D, OS04E10, OS04L, OS03B10
Emerging Markets	OG0VE, OS04E10, OG0TB, OV60B10

<u>OV50X</u>. In April 2025, we launched the OV50X CIS for the smartphone applications, featuring high dynamic range, for movie-grade video capture. The OV50X is a 50 MP sensor with a 1.6  $\mu$ m pixel in a 1-inch optical format designed for flagship smartphones that require HDR video and preview with single exposure, low-light performance, fast autofocus and high frame rates, demonstrating our strength in pixel miniaturization.

<u>OX03H10</u>. In October 2024, we launched the new 3 MP-resolution OX03H10 CIS – a 3.0  $\mu$ m pixel automotive viewing sensor. The new solution significantly enhances driving safety by enabling high imaging clarity in all lighting conditions for surround-view and rear-view cameras.

<u>OX12A10</u>. In October 2024, we launched the OX12A10 12MP resolution CIS. It was our 12MP image sensor to feature OMNIVISION's 2.1  $\mu$ m TheiaCel<sup>®</sup> technology, which harnessed the capabilities of next generation LOFIC, together with OMNIVISION's DCG<sup>TM</sup> HDR technology, to eliminate LED flicker regardless of lighting condition.

 $\underline{OV50M40}$ . In August 2024, we launched a versatile 0.61  $\mu$ m pixel CIS with 50-MP output, and features functions such as staggered HDR, dual analog gain HDR, and always-on for front, main, ultrawide and telephoto cameras in smartphones.

OX01J. In January 2024, we launched the OX01J image sensor, a new 1.3MP product for automotive 360-degree SVS and RVCs. The OX01J is a RAW image sensor with LFM and HDR of 140db.

<u>OV05C10</u>. In November 2023, we launched the OV05C10 image sensor, our 5.2MP product developed specifically for laptops featuring 16:10 aspect ratio. The sensor supports interlaced HDR for mainstream and high-end laptops, tablets, and IoT devices.

<u>OV02E</u>. In May 2023, we launched the OV02E, a 2MP 1.12  $\mu$ m BSI image sensor that delivers full HD 1080p at 60 fps and features staggered HDR for high video quality and ultra-low power mode with AI-powered always-on face ID recognition. Built on our PureCel®Plus architecture, its compact footprint is ideal for thinner laptops, tablets and wearable devices.

<u>OS04D</u>. In March 2023, we launched the OS04D, a 4MP 2.0  $\mu$ m 1/3-inch CIS built on our PureCel<sup>®</sup>Plus architecture that utilizes high-performance BSI pixel to provide ultra-low noise and overall better image quality with improvements of over 40% in sensitivity and 30% in SNR compared to its predecessor, while consuming 40% less power. With the ability to capture 2K resolution clear images and real-time, fast-moving HD video at 30 fps in low-light conditions, OS04D provides an ideal solution to address key needs of mainstream internet protocol and HD analog security cameras.

<u>OX01E20</u>. In January 2023, we launched the OX01E20, a 1.3MP SoC imaging solution for automotive surround view and rear view systems. The ASIL-B compliant OX01E20 features industry-leading 140 db HDR and LED flicker mitigation performance across a range of lighting conditions and automotive temperatures. With a 3.0  $\mu$ m 1/4-inch image sensor built on our PureCel®Plus architecture, it delivers superior low-light sensitivity and SNR performance in a small package with ultra-low power consumption, enabling design flexibility for next-generation vehicles.

<u>OV50H</u>. In January 2023, we launched the OV50H, a 50MP 1.2  $\mu$ m pixel 1/1.3-inch CIS that supports 12.5MP at 120 fps and HDR at 60 fps. It is our sensor that features H/V QPD, where the H/V mode ensures both horizontal and vertical orientations are in the same frame with 100% coverage, while QPD enables autofocus across the sensor's entire image array. This improves distance calculation, expedites autofocus and enhances low-light performance, thereby delivering premium image quality for wide and ultrawide rear-facing cameras in flagship and high-end smartphones.

<u>OG0VE</u>, In December 2022, we launched the OG0VE, a 3.0  $\mu$ m pixel image sensor that delivers 640 x 480 resolution in 1/7.5-inch optical format. Built on our OmniPixel®3-GS technology, this high-sensitivity sensor comes in a package size of just 3.6mm x 2.7mm that is 26% smaller and 50% more power-efficient than its predecessor. OG0VE is designed to address the high market demand for the smaller and lower-power-consuming cameras for smart glasses devices, metaverse, drone, machine vision, and barcode scanner products.

<u>OH02B</u>. In November 2022, we launched the OH02B, one of the world's first 2MP CIS with a square 1500 x 1500 resolution for gastrointestinal, ENT, orthopedic, surgical, dental, and veterinarian reusable and disposable endoscopes, catheters, and guide wires. It leverages our PureCel®Plus-S stacked-die architecture to enable high resolution in compact form. It is autoclavable, generates very low heat, and is cost-effective for one-time use, which makes it ideal for single-use endoscopes.

<u>OS04E10</u>. In October 2022, we launched the OS04E10, an image sensor with digital watermarking, a built-in anti-spoofing feature that ensures the original video source is not tampered with. With a 2K2K (2048 x 2048 pixels) square resolution delivered in 1/3.11-inch optical format, this 2.0  $\mu$ m pixel CIS is designed for 1:1 aspect ratio security wide-field-of-view (dome, fisheye, and doorbell) and pass-through (AR, VR, and mixed reality) cameras. It features our PureCel®Plus architecture and Nyxel® technology to deliver superior color reproduction and accurate images under low-light conditions with low power consumption.

OS04L. In October 2022, we launched the OS04L, a 4MP 1/3-inch CIS that brings 2K resolution digital images and HD video to consumer security devices such as smart home, doorbell,

baby monitor, internet protocol and HD analog cameras. Built on our 2.0  $\mu$ m OmniPixel<sup>®</sup>3-HS technology, this high-performance CIS is a cost-effective solution that uses high-sensitivity frontside illumination for true-to-life color reproduction in both bright and dark conditions.

<u>OV08X</u>. In September 2022, we launched the OV08X, the industry's leading 9.2MP 0.7 μm pixel image sensor in its class that provides 4K resolution in 1/5.7-inch optical format for next-generation thinner and lighter laptops. OV08X supports user needs for AI-tuned auto-framing with customizable field of view, human presence detection features for touch-free logins and auto-locks, and HDR image capture with two-exposure staggered HDR timing to minimize motion artifacts. Built on our PureCel<sup>®</sup>Plus-S stacked die architecture, it has a small module footprint and is capable of ultra-low power consumption to maximize battery life.

<u>OG0TB</u>. In August 2022, we launched the OG0TB, a small sensor for eye and face tracking in AR, VR, mixed reality and metaverse consumer devices. With a package size of just 1.64mm x 1.64mm, this 2.2  $\mu$ m pixel CIS delivers 400 x 400 resolution in 1/14.46-inch optical format at ultra-low power consumption, making it ideal for the smaller and lighter battery-powered wearable devices. Leveraging our PureCel®Plus-S architecture, OG0TB is a three-layer stacked BSI global shutter image sensors. It also features our Nyxel® technology to accurately capture fast-moving objects under low-light conditions.

<u>OV60B10</u>. In August 2022, we launched the OV60B10, a chip that features two types of sensors, a CIS and an EVS, and integrates the three layers of CIS, EVS and sensor processor wafers into a single chip to achieve optimal performance and minimal size. The EVS is an advanced bio-inspired vision sensor that is neither limited by traditional exposure time and frame rate nor subject to imaging parameters such as white balance, sensitivity or exposure time. This allows for the detection of ultra-high-speed motion and enables spatial and temporal continuity. The CIS/EVS fusion further amplifies the advantages of each sensor by enabling signals captured on their shared focal plane to be aligned with high precision, hence delivering a more accurate, comprehensive and reliable output. The OV60B10 is suitable for a wide range of applications in smartphones, automobiles and smart glasses to perform functions such as ultra-high-speed image reconstruction, ADAS and eye tracking.

<u>OVB0A</u>. In August 2022, we launched the OVB0A, a small 200MP image sensors, with a pixel size of just 0.56  $\mu$ m. The OVB0A is designed for rear-facing (wide-angle) main cameras in high-end smartphones. It leverages our PureCel®Plus-S stacked die architecture to maintain high resolution and performance in compact form, delivering 100% QPD and quantum efficiency performances that mirror those of our award-winning 0.61  $\mu$ m OVB0B CIS. Its selective conversion gain attains the optimum balance between low-light image quality and HDR, which allows smartphone OEMs to optimize HDR performance for contrasting light and dark areas in various scenes.

<u>OV50E</u>. In August 2022, we launched the OV50E, a 50MP 1.0  $\mu$ m pixel smartphone image sensor that features staggered HDR technology and video HDR crop zoom support. It is equipped with our second-generation QPD to allow better and faster autofocus. Built on our PureCel®Plus-S stacked die architecture, the OV50E has the near-pixel binning capability to output a 12.5MP image or a video with the frame size of 4K2K with four times the sensitivity. The OV50E delivers the industry's leading low-light image and HDR video capturing capabilities for rear-facing main cameras in high-end and mainstream smartphones.

<u>OS03B10</u>. In March 2022, we launched the OS03B10, our upgraded 3MP 1/2.7-inch CIS. Built on our advanced 2.5  $\mu$ m OmniPixel<sup>®</sup>3-HS technology, the OS03B10 offers programmable modes as

well as a full range of image control functions for easy use in surveillance, dashcams and other video applications. Leveraging high-sensitivity frontside illumination for true-to-life color reproduction in both bright and dark conditions, it also demonstrates low-light sensitivity, SNR, full-well capacity, quantum efficiency and low-power consumption.

<u>OX05B</u>. In January 2022, we launched the OX05B, an automotive 5MP RGB-IR global shutter sensor for the fast-growing in-cabin monitoring market. With a pixel size of just 2.2  $\mu$ m and based on our Nyxel<sup>®</sup> technology, it offers high NIR sensitivity for strong performance even in extremely low-light conditions. The OX05B also has a wide field of view and enough pixels to enable simultaneous driver and occupant monitoring, further reducing complexity, space, power and cost. It comes in a stacked package that is 50% smaller than competitive products. Our OX05B won the silver award at the 2022 AutoSens Awards for the Most Innovative In-cabin Perception Application.

<u>OVB0B</u>. In January 2022, we launched our award-winning OVB0B, a small 200MP image sensor with pixel size at just 0.61  $\mu$ m for smartphone cameras. With its unique, industry's first 16-cell binning capability for 4K2K video, and ability to achieve 12.5MP performance in low light environments, the OVB0B delivers high resolution in a small package for high-end smartphones with low-light performance in its class. The OVB0B was named the Silver Honoree in the 2022 Innovators Award hosted by Vision Systems Design.

<u>OX03D</u>. In January 2022, we launched the OX03D, a 3MP SoC imaging solution for automotive surround-view systems, rear view systems and e-mirror camera monitoring systems. Built on our PureCel<sup>®</sup>Plus-S stacked die architecture, the OX03D delivers leading image quality and high functionality with low power consumption and minimal chip size. By integrating both the image sensors and the image signal processors into a single chip, it helps auto manufacturers to save on both cost and space.

# CameraCubeChip® products

<u>OCH2B</u>. In November 2022, we launched the OCH2B, a 2.5mm x 2.5mm CameraCubeChip<sup>®</sup> package that features our OH02B CIS to deliver high image quality for disposable endoscope designs. OCH2B is biocompatible and waterproof. It features our proprietary AntLinx<sup>TM</sup> interface, which provides a thin 4-meter interface connection directly from the endoscope camera to the camera control unit tower, which reduces size and design complexity.

# LCOS products

<u>OP03050</u>. In January 2024, we launched the OP03050, a low-power, small form factor LCOS panel that integrates the LCOS array, driving circuit, framebuffer and interface in a single chip. The OP03050 provides a high-resolution, immersive experience for real-time video conferencing and streaming when used in AR, XR and MR glasses and head-mounted displays.

<u>OP03011</u>. In May 2023, we launched the OP03011, an ultra-compact single-chip LCOS panel for next-generation AR, extended reality and mixed reality glasses and head-mounted displays. This 3.8  $\mu$ m pixel LCOS panel delivers 648 x 648 resolution at 120 Hz in extremely small 0.14-inch optical formats. Its low-power, lightweight design is ideal for next-generation smart glasses that can be worn for a prolonged period.

# ASIC products

OAX4600. In May 2022, we launched the OAX4600, a next-generation AI-enabled ASIC designed for automotive applications. The OAX4600 integrates a unique set of features developed specifically for the in-cabin monitoring systems, and its small size and low power provide OEMs and ODMs with the flexibility to place the camera at any location within the car, regardless of space constraints. Built on a stacked die architecture, it provides integrated RGB-IR image signal processing with two dedicated NPUs and 2 Gb of embedded memory in a single low-power, small-package chip to ensure robust, latency-free image processing. Our OAX4600 won the silver award at the 2022 AutoSens Awards for the Hardware Development of the Year.

#### **Display Solutions**

We have been constantly driving technology iterations in the industry and released a series of new products to address evolving market needs for enhanced functionalities, such as higher refresh rates and better touch performance. Our proprietary display solutions support appealing features such as ultra-narrow frame, high screen-to-body ratio, and low-power consumption.

OD5160. In January 2024, we launched OD5160, our T-CON embedded driver IC for next-generation notebook display.

 $\underline{\text{TD4165}}$ . In January 2024, we launched TD4165, fine HD 120Hz TDDI for smartphone LCD displays.

<u>TD4376</u>. In January 2024, we launched TD4376, FHD 144Hz TDDI for smartphone LCD displays. In addition, we have witnessed an increased utilization of OLED displays in a wide variety of consumer electronics, such as smart watches, tablets and PCs. The growing popularity of OLED panels is attributable to their thinner and lighter design, improved image quality and brightness, faster refresh rates, and lower power consumption, among other advanced features. A key driver of this booming market is the industry's increasing investments in AMOLED, a type of OLED display built on the thin-film technology and known for its outstanding performance and adaptability to larger screens. To address this significant unmet demand, we have developed a series of display drivers with a focus on OLED for smartphones. We are also collaborating closely with leading panel makers across China for OLED product development in smartphone and other consumer electronics.

OD6631. In January 2024, we launched OD6631, FHD 144Hz AMOLED driver for smartphone displays.

# Analog

We design and market analog solutions for a wide range of end-market customers. Our analog products primarily include PMICs (such as LDOs and DC-DC converters), LED backlight drivers and analog switches, as well as discrete semiconductors such as TVS, MOSFETs and Schottky diodes. These can be integrated into an extensive range of applications, including televisions, digital signage, smartphones, wearable devices, computers, PCs, tablets and other consumer electronics and appliances, as well as industrial applications such as power suppliers, e-bikes, LED lighting and motor drives.

*PMICs.* PMICs are IC for power management. Our advanced PMICs enable energy-saving, high-power-density and lower-standby-power solutions. Our portfolio of PMICs covers a variety of

applications in consumer electronics, automotive, and IoT, as integrated components helping manage battery power charging, DC-DC conversion, voltage scaling, and many other uses.

We are a pioneer in China in developing LDOs with a high frequency band (100k to 1MHz) that retains our signature outstanding product performance with low power consumption, providing a desirable domestic alternative to high-end imports. We also offer a wide range of LDOs that are used across various applications including televisions, set top boxes, computers, graphic cards, network communication equipment and other portable electronic devices. We also offer DC-DC converters targeting mobile applications and high power applications such as televisions, PCs, smartphones, set-top boxes and display modules. We expect our DC-DC converters will meet customer's green power requirements by featuring wide input voltage ranges, high efficiency and small size.

LED backlight drivers. LED backlighting drivers serve the fast-growing LCD and LED panel backlighting market for LCD and LED televisions, LCD monitors, digital signage, computers, smartphones and tablets. Our products are designed to provide high efficiency and wide input voltage range, as well as pulse width modulation dimming for accurate white LED dimming control. LED lighting drivers have a wide input voltage range applicable to incandescent bulb and fluorescent lamp replacement.

*Analog switches.* Analog switches are semiconductor devices capable of selectively transmitting analog signals and routing analog signal paths. We provide analog switches with high efficiency and low power consumption for consumer electronics, surveillance, telecommunication, automotive and industrial applications.

*TVSs.* TVSs are avalanche diodes specially designed to clamp over voltages and dissipate high transient power surges. TVS devices enables stability over time for better reliability.

*MOSFETs*. MOSFETs are used in applications to switch, shape or transfer electricity under varying power requirements. They allow electronics manufacturers to achieve specific design goals of high efficiency and low standby power consumption. The key application segments are smartphones, wearable devices, automobiles, televisions, computers, laptops, tablet, servers, lighting and power supplies for consumer electronics and industrial equipment.

*Schottky diodes.* Schottky diodes are semiconductor diodes formed by the junction of a semiconductor with a metal. It has a low forward voltage drop and a very fast switching action, and is used in a myriad of applications, including devices for voltage clamping, reverse current and discharge protection.

# **OUR SEMICONDUCTOR DISTRIBUTION BUSINESS**

Semiconductor distribution is a key area of expertise for us, complementing our semiconductor products and solutions. We have built one of the largest semiconductor distribution networks in China, which not only broadens and deepens our customer engagement but also provides valuable insights into next-generation product development. These insights enable us to refine our solutions further, anticipate evolving customer needs, and deliver innovative offerings that align with market demands. Through this network, we strengthen our position as a trusted partner in the semiconductor ecosystem. More specifically, our distribution business helps us maintain close partnerships with an extensive range of OEMs, ODMs, and semiconductor solution providers. In addition, we also distribute products to downstream distributors. This further broadens our vertical outreach, which contributes to the

promotion of our own products. We are also able to gain deep visibility into customers' technology roadmaps and foresight into industry trends, which inspire our R&D efforts, develop in-trend products and guide our M&A initiatives.

We distribute tens of millions of components each year, primarily including electronic components, structural devices, discrete semiconductors, IC, and modules, covering smartphones, household appliances, surveillance, smart wear, industrial equipment, power management, and automotive components. With nearly a decade of experience in semiconductor distribution, we have developed an extensive sales support and distribution network, fostering close relationships with key electronics manufacturers. Additionally, we have cultivated strong business partnerships and nurtured long-term collaborations with internationally renowned upstream suppliers and downstream customers.

Notably, to support our distribution business, we maintain a highly trained team of product managers and field applications engineers. This team is equipped with extensive strategic marketing expertise and a keen ability to identify emerging market trends. Additionally, we provide comprehensive technical support and assistance to both potential and existing customers, ensuring the seamless integration of our solutions into their products. We believe that the depth and quality of this design support are key to improving customers' time to market and maintaining a high level of customer satisfaction. See "—Branding and Marketing—Sales and Marketing/Customer Technical Support" for more details.

Our semiconductor distribution business contemplates a buyer/seller relationship rather than a principal/agent relationship, which is a common practice in the industry. We act as a seller when rendering semiconductor distribution services to our customers, which consist of OEMs, ODMs, and semiconductor solution providers. We recognize revenue on the semiconductor products we distribute when our performance obligations are satisfied, meaning at the point of delivery of products when we transfer control of a product to a customer. Our revenue from the semiconductor distribution business is recognized on a gross basis, net of discounts and return allowances. In 2022, 2023 and 2024, we distributed products to 216, 224 and 226 downstream distributors which generated revenue for our semiconductor distribution business, the amount of which was not material for our semiconductor distribution business during the Track Record Period. Such downstream distributors were independent third parties.

# APPLICATIONS OF OUR SEMICONDUCTOR PRODUCTS AND SOLUTIONS

Our advanced digital imaging, display, and analog solutions are designed to serve a wide range of applications across multiple industries. We provide innovative solutions that empower missioncritical applications in key verticals, including automotive, smartphone, medical, surveillance, and emerging technologies such as smart glasses.

# **Smartphones**

Advanced digital imaging solutions empower smartphone manufacturers to deliver professional-grade cameras to consumers, meeting the growing demand for high-quality photography. Today, more than ever, consumers rely on their smartphone cameras to capture and share life's special moments—whether it's selfies with friends, children's birthday parties, sporting events, travel adventures, or countless other experiences. As smartphones increasingly replace standalone cameras as the go-to choice for photography, the expectations for imaging technologies have risen significantly.

Meanwhile, our continued dedication to offering industry-leading display and analog solutions drives our continued investment in advancing our technologies in this vertical.

# Digital imaging

Our advanced image capturing technologies allow users to capture high-quality still images and videos while maintaining high standards of performance. We have developed a full suite of core technologies from pixel architectures to image capturing technologies, along with our PureCel<sup>®</sup> and PureCel<sup>®</sup>Plus technologies for wafer-level camera modules.

We are developing high resolution image sensors which are widely used by renowned smartphone brands for their flagship models, while striving to sharpen our competitive edge in pixel miniaturization and image resolution. Our front facing selfie camera sensor, for example, delivers professional quality, high-resolution selfies in both natural and low-light conditions. Offering a robust combination of performance, features and power consumption, our telephoto camera solutions exceed the need of smartphone-based photographers. Our wide angle technology allows photographers to be more versatile and editors to increase post-production efficiency.

#### Display and power management

We have developed a series of display driver chips specifically designed for smartphone OLED displays. Our innovative OLED DDIC products have been tested and approved by leading panel suppliers in China. As battery capacity and fast-charging technologies continue to advance rapidly in smartphones, our analog power management solutions help customers address critical challenges related to power density and efficient power delivery.

# Automotive

The automotive industry is undergoing a significant transformation, with next-generation vehicles evolving into intelligent, electronic platforms that are not only autonomous but also serve as integrated hubs for entertainment and information. As a result, the market for automotive image sensors has witnessed substantial growth in recent years—a trend expected to persist in the foreseeable future. This growth is being driven by the increasing adoption of advanced technological applications and the implementation of global legal mandates, both of which are driving higher attach rates for image sensors in vehicles.

Beyond the sensing and viewing applications of traditional rear view cameras, the demand for all-around interior and exterior monitoring and viewing capabilities has also become an unequivocal necessity. Through the development and implementation of ADAS and in-cabin monitoring systems, cars are expected to advance in safety and reliability.

Our robust and compact CISs are designed from the start with automotive market needs in mind to deliver industry-leading image quality and are a proven industry mainstay. Automotive sensing and viewing/display are two main applications of our automotive solutions.



Usage of CIS solutions in smart vehicles

# Automotive sensing applications

Our digital imaging solutions are used in various automotive sensing applications, with a focus on ADAS and in-cabin monitoring.

ADAS are imperative in providing intelligent driving experience as well as precise vehicle intervention in minimizing potentially fatal accidents. Image sensors have become a critical component in ADAS systems, notwithstanding their increasing integration with a blend of other sensors and capabilities, such as radar, LiDAR and vehicle-to-vehicle systems. Working in union with adaptive cruise control and autonomous emergency braking systems, our ADAS sensors are "eyes on the road" helping to communicate a safe way for a vehicle to respond and function. Operating in conjunction with a vehicle's existing long-range radar in regulating speed and enacting braking systems, our ADAS sensors help systems engage in peripheral protection, lane-keeping balance and lane-departure recognition. Vehicles equipped with traffic sign recognition and auto-headlamp adjustment rely on our ADAS sensors to assist in recognizing lighting levels and initiate speed limit alerts as well. For the fast-growing in-cabin monitoring market, we offer AI-enabled, automotive ASIC optimized for DMS systems, which are also designed for other automotive applications such as occupant detection, FaceID, and driver-comfort settings. In addition, our RGB-IR image sensor offers value with high sensitivity across all in-cabin lighting conditions as well and can enable functionality like video conference calling. These features allow OEMs and ODMs the ability to build in luxury value at the entry-level to the mass market. To complement our sensor portfolio, we also offer dedicated ASICs which target DMS applications.

In September 2023, we launched the OX08D10, an 8 MP CIS featuring our proprietary TheiaCel<sup>®</sup> technology. This sensor was pre-integrated and validated with advanced color tuning for next-generation ADAS and AI-enabled digital cockpit applications. Building on the success of the OX08D10, we introduced the OX05D10, a 5 MP CIS also based on TheiaCel<sup>®</sup> technology. It delivered LED flicker mitigation (LFM) without compromising image quality, making it ideal for automotive applications where HDR, low-light performance, and LFM are critical.

In October 2024, we launched the OX12A10, a 12 MP CIS — the high-resolution product in our 2.1 µm TheiaCel<sup>®</sup> family. The OX12A10 combined high resolution with low-light performance, LED flicker mitigation, compact size, power efficiency, and high-temperature performance. It was specifically designed to meet the demanding requirements of next-generation ADAS and autonomous driving machine vision systems. Also introduced was the OX03H10, a 3 MP CIS — an automotive viewing sensor with 3.0 µm pixels built on TheiaCel<sup>®</sup> technology. Leveraging the LOFIC architecture, the OX03H10 offered outstanding low-light performance and achieved a full 140 dB dynamic range with a single exposure, while delivering superior LED flicker mitigation. With these introductions, we expanded our TheiaCel<sup>®</sup> technology platform, now offering four sensors with resolutions ranging from 12 MP to 3 MP, giving our customers greater flexibility to select the optimal solution based on their specific system requirements.

In April 2025, we launched the OX01N1B CIS for in-cabin automotive DMS which utilizes our Nyxel<sup>®</sup> NIR technology. It is a 1.5 MP RGB-IR or monochrome BSI global shutter sensor with a pixel size of 2.2  $\mu$ m and an optical format of 1/4.51-inch. The OX01N1B has strong low-light performance, a high modulation transfer function for better image quality and resolution, low power consumption, and an optical format that enables extremely compact camera module design.

# Automotive viewing and display applications

Featured applications of our digital imaging and display solutions include rear and surround view cameras, e-mirrors and HUDs.

Our commitment to delivering superior surround-view solutions to automotive OEMs and ODMs is rooted in enhancing both safety and value. A 360-degree surround-view system utilizes cameras mounted on each side of the vehicle, coordinated by a central processing unit to generate an aerial view. This technology plays a critical role in enabling parking assistance features and providing comprehensive blind-spot monitoring, ensuring a safer and more convenient driving experience. We offer a wide range of sensor solutions for these application areas, ranging from 1MP image sensor to 3MP image sensor and covering higher performance up to 140 dB HDR and LED flicker mitigation. For rear view camera use case, we offer distortion correction and overlay capabilities. We also offer a range of ASICs which complement these image sensors and can cover a range of architectures.

We specialize in image sensors and ISPs that capture and process high-quality images for a more natural scene reproduction, in spite of any extreme weather or lighting obstacles and over the automotive temperature range. In addition, due to the amount of back-over incidents per year, global mandates are increasingly requiring vehicles to come standard with rear view camera implementation. Furthermore, our high performing solutions also support innovative e-mirror technologies used in vehicle-to-vehicle communication.

We also provide LCOS products, which are essential in empowering HUD applications. HUDs have also been used in vehicles to project information directly into the user's field of vision, usually on transparent and reflective surfaces. Our LCOS reflective projection technology enables improved light transmission and higher heat resistance, hence ensuring enhanced HUD performance and driver safety.



Set forth below is an illustrative picture of our LCOS products applied in AR-HUD systems

# Surveillance

Driven by the emergence of the IoT, surveillance cameras are no longer limited to large-scale applications such as public transportation and office buildings and other large-scale scenarios. Instead, they have become an integral part of smart homes. Our Nyxel<sup>®</sup> NIR technology, built on our renowned PureCel<sup>®</sup>Plus pixel architecture, allows surveillance cameras to see better and farther in low light while consuming less power. Meanwhile, we remain at the forefront of delivering energy-efficient power management solutions, as well as top-tier interface protection products, designed for surveillance applications.

Ensuring safety and security in the home remains a top priority, whether for personal protection or property surveillance. As smart home monitoring systems become increasingly essential, our highresolution, low-power, and highly sensitive image sensors are ideally suited to meet the demands of this growing market. These sensors excel in applications such as indoor security cameras, indoor webcams, and smart doorbells, showcasing our ability to empower innovative and reliable smart home monitoring solutions.

# Medical

The medical markets for endoscopic imaging solutions are growing rapidly, driven by a need for minimally invasive diagnostic and therapeutic procedures, socioeconomic trends such as an aging population, and rising medical costs that are pushing procedures back into the physician's office and beyond, through telemedicine for remote health monitoring. Technological developments have also gradually moved the industry away from rod lens, fiberscope and CCD image sensors and toward CMOS-based, chip-on-tip image sensors to reduce costs as well as increase performance. Single-use endoscopes and catheters also have proven advantages over reusable devices that have potential cross-contamination risk.

We offer industry-leading advanced digital imaging solutions across the spectrum of endoscopy and catheter procedures. Our comprehensive medical imaging solutions continue to lead the way and meet the ever-expanding technological needs of the medical industry. In November 2020, we launched

OVMed<sup>®</sup> Cables, a line of medical endoscope, catheter and dental cables, to create a platform in combination with our portfolio of CameraCubeChip<sup>®</sup> wafer-level camera modules and OVMed<sup>®</sup> image signal processors boards. This addition makes us one of the industry's first suppliers of complete, end-to-end medical imaging subsystems, enabling medical device OEMs and ODMs to focus on differentiating their core endoscope and catheter designs, while accelerating time to market and obtaining a competitive materials cost. In November 2022, we introduced our proprietary AntLinx<sup>™</sup> digital interface, a next-generation CMOS chip-on-tip endoscopy interface. AntLinx<sup>™</sup> reduces interface conversion requirements and its high noise immunity ensures high-quality image delivery. In November 2023, we launched our new OVMed<sup>®</sup> ISP for up to 2 MP medical endoscope cameras, which are easy-to-implement solution for reusable and disposable endoscopes connected to handheld tablet consoles or camera control units.

# **Emerging Market**

Machine vision, smart glasses and Edge AI are emerging as high-growth markets, driven by increasing adoption across industries such as education, entertainment, tourism, fitness, gaming, industrial automation, robotics, humanoid robots, logistics and barcode scanning, and ITS.

# Machine Vision

In 2024, we launched a new machine vision department, underscoring our commitment to advancing industrial automation and intelligence and to align with the evolving needs of the machine vision market. Machine vision simulates human visual perception through optical components, equipping automated production lines and industrial robots with environmental awareness. This enables them to respond in real time and perform highly precise tasks. The machine vision market has seen strong demand for 3D cameras and CISs, as CMOS technology significantly simplifies the design and reduces the complexity of industrial cameras. Compact imaging solutions—including smart cameras—are easier to integrate and better suited for a wide range of industrial environments. Machine vision plays a pivotal role in applications such as smart warehousing, logistics, and automated inspection systems. Leveraging our robust technical expertise in Nyxel<sup>®</sup>, BSI, and global shutter technologies, we will focus on developing innovative solutions for industrial automation, robotics, humanoid robots, logistics barcode scanning, and ITS.

In 2024, we launched the OG09A10, our large-format global shutter CIS designed for factory automation and ITS. The OG09A10 is a 9 MP global shutter sensor with a 1-inch optical format, featuring a 3.45 µm pixel built on our patented PureCel<sup>®</sup> Plus-S stacked-die architecture for outstanding performance. The sensor also integrates our Nyxel<sup>®</sup> NIR technology, enabling sharp, clear imaging even in low-light environments. With DCG DCG<sup>™</sup> HDR, it delivers extended dynamic range, low noise, and artifact-free images — making it ideal for machine vision applications that require capturing high-speed moving objects in challenging lighting conditions.

We also introduced a complete camera solution consisting of the OG02B10 color global shutter image sensor and the OAX4000 ASIC ISP. The OG02B10 is a 2 MP global shutter sensor based on our advanced 3 x 3  $\mu$ m OmniPixel®3-GS global shutter pixel technology, which eliminates motion blur and significantly improves low-light sensitivity. The OAX4000 ISP supports up to four camera modules with 140 dB HDR, enhancing overall system reliability. This solution enables simultaneous capture of high-resolution color images from four cameras, with the ISP acting as a backend engine to support more advanced AI functions. It has been validated for use in machine vision applications.

In addition, we expanded our portfolio with a series of ultra-compact global shutter sensors for machine vision, including the OG05B1B and OG01H1B with 2.2  $\mu$ m backside-illuminated (BSI) pixels, and the OG02C10/1B, OG03A10/1B, and OG05C10/1B with 3.45  $\mu$ m BSI pixels, offering high resolution in small form factors. These sensors deliver high shutter efficiency, high frame rates, superior light sensitivity, low noise, and enhanced NIR quantum efficiency, resulting in superior performance in low-light conditions — all while accurately capturing fast-moving objects.

# Smart glasses

The demand for smart glasses is growing and the market continues to find new ways to leverage AR/VR capabilities. Recent use cases show great potential across many different industries, including entertainment and health care. AR/VR is transitioning from the technology validation phase to the large-scale penetration phase, culminating with smart glasses. We continue to assist that growth by providing cutting-edge viewing and sensing solutions to a global audience.

Applications in smart glasses are highlighted by our capability to empower global shutter cameras for eye tracking and SLAM. With smart glasses, eye tracking and efficient processing is imperative. Reducing and eliminating image artifacts is a necessity in providing end users with high-quality experiences and product satisfaction. Our use and continued development of global shutter technology capabilities fulfill that demand. Alongside our global shutter technology, our compact sensors include an low-light sensitivity solution, which is needed in gesture detection, depth and motion detection and head and eye tracking. Similarly, our global shutter technology allows greater clarity and accuracy by eliminating image artifacts and improving low-light sensitivity within SLAM applications. Leveraging such technology capabilities, we launched the OG0TC1B in June 2024, a BIS global shutter image senor for eye and face tracking in smart glasses applications. Notably, we expect the use of LCOS micro display, which solves the problem of visual pixelation, to play an increasingly important role in making smart glasses more viable. As such, in May 2023, we launched the OP03011, an ultra-compact single-chip LCOS panel for next-generation AR, extended reality and mixed reality glasses and head-mounted displays.

# Edge AI

As the semiconductor industry continues to evolve in response to the growing demand for intelligent, real-time data processing, Edge AI applications are emerging as a key growth driver. Building on the rapid development of mobile networks and the widespread adoption of smart devices over the past decade, semiconductor companies are now at the forefront of enabling AI capabilities directly at the edge-within devices such as smartphones, automotive systems, smart glasses, and IoT platforms. This shift toward decentralized AI processing allows for faster decision-making, improved privacy, and reduced reliance on cloud infrastructure. The evolution of smartphones into powerful, AI-enabled platforms has set the stage for broader adoption of Edge AI across industries, particularly in next-generation vehicles where low-latency sensing and processing are critical for autonomous driving and ADAS. Additionally, the integration of high-performance CIS with Edge AI capabilities is transforming user experiences in social media, entertainment, and sports platforms by enabling real-time image enhancement, gesture recognition, and immersive content creation. For semiconductor companies, this represents a strategic opportunity to deliver optimized, system-level solutionsincluding application-specific image sensors, AI accelerators, and power-efficient SoCs-that not only meet the performance demands of Edge AI but also enable differentiated, value-added features across a wide range of consumer and industrial applications.

In July 2024, we launched the new OP03050 and the new OG0TC BSI global shutter image sensor, enabling eye and face tracking in AR/VR/MR consumer headsets and glasses. This is our first application of proprietary DCG<sup>™</sup> HDR technology in a 2.2 µm pixel image sensor for the AR/VR/MR market.

# OUR INDUSTRY-LEADING PIXEL ARCHITECTURE AND TECHNOLOGY PORTFOLIO

Building on our renowned pixel architectures (which refers to the design and layout of individual pixels in an image sensor or display, defining how light is captured or emitted at the smallest unit – the pixel), we have developed an extensive array of industry-leading, award-winning technologies, with a focus on pixel miniaturization, advanced image capturing, CameraCubeChip<sup>®</sup>, LCOS, TDDI, and a wide range of analog technologies. We believe these architectures and technologies and the related intellectual property rights create barriers for competitors and allow us to provide high-value semiconductor solutions in a variety of high-growth markets.

Specifically, our broad line of semiconductor solutions is based upon the following pixel architectures and key technologies:

- Pixel architectures, represented by PureCel<sup>®</sup> and PureCel<sup>®</sup>Plus
- Image capturing technologies, represented by TheiaCel<sup>®</sup>, Nyxel<sup>®</sup>, RGB-IR, OmniPixel<sup>®</sup>-GS and HDR
- CameraCubeChip<sup>®</sup> technology
- LCOS technology
- TDDI technology
- LDO technology
- TVS technology
- Signal chain technology

# **Pixel Architectures**

As image sensors continue to evolve, they are changing the way digital devices deliver the world to us, and we are in the business of fueling that innovation. That is why we created our superior pixel architectures to leverage smaller geometry process for higher gate density, faster device speed, smaller sizes and lower power consumption.

# PureCel®

Our revolutionary PureCel<sup>®</sup> pixel architecture delivers ultra-low-power image-sensing performance. Advanced process nodes and pixel architectures allow PureCel<sup>®</sup> to deliver better image quality. Also, with PureCel<sup>®</sup>, we have significantly improved high- and-low-light performance, dynamic range and reduced noise.

Key features of PureCel<sup>®</sup> include the following:

- *Advanced pixel array*. PureCel<sup>®</sup> has improved our circuit architecture, added a new pixel array architecture and added an interface process. The advanced pixel-array architecture provides higher sensitivity and full-well capacity, leading to higher sensor dynamic range.
- *Low-power and compact*. The low-power and compact design of PureCel<sup>®</sup> enables smaller camera modules and a longer battery life camera system.

• *PureCel®-S stacked die technology*. Our PureCel®-S stacked die technology separates the PureCel<sup>®</sup> imaging array and the processing function into two layers to enable additional features with smaller die size.

Key benefits of PureCel<sup>®</sup> include the following:

- *Delivers high performance*. Our PureCel<sup>®</sup> improvements result in a new sensor generation with lower noise, less blooming, better low-light sensitivity and higher full-well capacity to further enhance sensor dynamic range in comparison with the first-generation BSI image sensor technology.
- *Meets ultra-low-power requirements*. Many of today's image-sensing applications, such as medical, mobile and automotive, require ultra-low-power solutions. PureCel<sup>®</sup> uses 55nm logic process, which supports advanced circuit architecture and results in our low power image sensor platform.
- *Represents a technology evolution.* PureCel<sup>®</sup> is our flagship pixel architecture, laying a solid foundation for subsequent pixel-architecture generations including PureCel<sup>®</sup>Plus and beyond, ushering in a new era of image sensors.

The PureCel<sup>®</sup> technology provides leading digital imaging solutions to the smartphone and surveillance markets. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of our signature solutions empowered by PureCel<sup>®</sup>.

# PureCel<sup>®</sup>Plus

PureCel<sup>®</sup>Plus is an overall improvement of how images are captured. It is the next leap forward in the evolution of camera technology. PureCel<sup>®</sup>Plus is the next step in the evolution of CIS technology that represents superior performance in improved low-light image quality, improved dynamic range, lower power consumption and smaller camera.

Key features of PureCel<sup>®</sup>Plus include the following:

- *Buried color filter array*. Buried color filter array dramatically improves the tolerance in collecting the light with various incident light angles.
- *Deep trench isolation*. Deep trench isolation reduces crosstalk by creating isolation walls between pixels inside silicon for better chief ray angle tolerance. PureCel®Plus introduces improved deep trench isolation for even better pixel isolation and low-light performance.
- *PureCel®Plus-S stacked die technology.* Our PureCel®Plus-S stacked die technology uses stacked chip technology to stack the image sensor pixel die onto a separate analog and digital die to further reduce chip footprint with better image sensor performance.

Key benefits of PureCel<sup>®</sup>Plus include the following:

• Enhancing sensor sensitivity. In low-light conditions, PureCel®Plus picks up more light than previous generations by significantly enhancing sensor sensitivity and full-well capacity, which boosts low-light performance with higher dynamic range. Reducing color crosstalk further improves color reproduction. Once light rays are collected by the image sensor, they are transformed into electrical signals for internal processing prior to sending digital signals to an external image processor unit for capturing, sharing and transmitting captured images. PureCel®Plus achieves better light collection by utilizing buried color

filter structure and deep trench isolation. The buried color filter structure has made it possible to increase the angular tolerance allowing us to reduce the stack ID, which makes it possible to accommodate smaller form factors. Also, the addition of deep trench isolation prevents light from crossing over to neighboring pixels, which significantly reduces crosstalk. Furthermore, PureCel<sup>®</sup>Plus greatly increase SNR and color fidelity, which allows for capturing lifelike image quality. PureCel<sup>®</sup>Plus incorporates advanced process and circuit architecture changes that lead to lower noise, lower power consumption and a stable black level across variable external conditions. It increases storage efficiency, which allows pixels to hold more electrons. This improves overall scene dynamic range, keeping detail in both foreground and the background.

• Ultra-compact system. In addition to improving performance, smartphone manufacturers are packing image systems into slimmer designs. PureCel®Plus's sensor angular response improvement enables this with higher chief ray angle tolerance, allowing for low F-number lenses and a thinner camera module. Under the image plane, PureCel®Plus-S incorporates new stack chip technology that allows more camera functions and system level integration into smaller hardware profiles. Previous BSI chips use the space to the side of the sensor to host required circuits while empty carrier wafer is used for structural support. PureCel®Plus makes uses of space occupied by empty structural wafer into actual logic area, allowing a large digital area for integrating camera functions by stacking circuits in the silicon support wafers underneath the sensor. Not only does it allow for smaller cameras, it also enables even higher dynamic range expansion on-chip ISP noise cancelation, fast auto focusing and platform for future tech innovation.

Both PureCel<sup>®</sup> and PureCel<sup>®</sup>Plus target smartphone, mobile and PC applications. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of our signature solutions empowered by PureCel<sup>®</sup> Plus.

# **Image Capturing Technologies**

# TheiaCel®

Launched in September 2023, our TheiaCel<sup>®</sup> technology represents a new family of easy-to-implement solutions which combines our proprietary HDR technologies and LOFIC technology to address growing challenges with respect to achieving HDR imaging that delivers improved flicker mitigation and enhanced performance in low-light conditions.

Key features of our TheiaCel<sup>®</sup> technology include:

- *LOFIC Technology with Large Capacitor in Each Pixel.* Enables HDR by storing overflow electrons, ensuring superior performance in extreme lighting conditions.
- *Integration of DCG and Split-Diode HDR Technologies*. Combines DCG and split-diode architectures to capture high-contrast scenes with optimal content and image quality.

Key benefits of our TheiaCel<sup>®</sup> technology include:

• *Wide Dynamic Range and Superior LFM Performance*. Achieves 3.3x higher LED Flicker Mitigation (LFM) dynamic range and nearly 3x higher total dynamic range compared to non-LOFIC-based predecessors, ensuring flicker-free imaging in virtually any lighting condition.

- *Enhanced Low-Light Sensitivity and SNR*. Provides over 50% higher sensitivity and maintains a balance between low-light SNR and dynamic range, critical for automotive applications like night driving.
- *Compact Size and Power Efficiency*. Delivers industry-leading performance in a compact form factor, reducing space requirements while maintaining low power consumption, ideal for modern automotive designs.

TheiaCel<sup>®</sup> technology, by integrating LOFIC technology with our proprietary HDR technology, delivered outstanding image quality under any lighting conditions. The initial application of this technology focused on the automotive sector with a 2.1  $\mu$ m pixel process, combined with DCG<sup>TM</sup> HDR technology, significantly enhancing imaging performance in low-light environments and addressing the issue of LED light source flickering.

# Nyxel®

Our award-winning Nyxel<sup>®</sup> technology is a cutting-edge NIR light sensing technology. It boosts quantum efficiency for image sensors that see better and farther, and uses less power.

Key features of our Nyxel<sup>®</sup> technology include:

- *Thick silicon.* Thicker silicon increases the chance of photon absorption, offering higher quantum efficiency and increased signal strength than thinner silicon.
- *Deep trench isolation.* Deep trench isolation creates a barrier between the pixels to eliminate crosstalk and improve modular transfer function.
- *Absorption structure*. Using a carefully managed optical scattering layer prevents defects in the image's dark area and lengthens the photon path.

Key benefits of our Nyxel<sup>®</sup> technology include:

- *Capture sharper*. The Nyxel<sup>®</sup> technology achieves up to 3x quantum efficiency improvements to capture sharp, bright images and deliver optimum image data. This enables accurate eye tracking and gesture control in smart glasses, or for detecting distracted or drowsy drivers in DMS.
- *Improved night vision*. With significant increases in NIR sensitivity, the Nyxel<sup>®</sup> technology offers better photon absorption compared with other NIR technologies. This means improved night vision, allowing surveillance cameras, ADAS and surround-view systems to capture brighter images from farther away.
- *Minimal power requirements*. While current machine-vision and night-vision NIR solutions are augmented by power-intensive IR LEDs, sensors built on the Nyxel<sup>®</sup> technology require minimal additional lighting—reducing system power needs and extending the life of battery-operated surveillance cameras.

The Nyxel<sup>®</sup> technology provides the ultimate NIR performance in challenging lighting conditions for a broad spectrum of industries, such as automotive, IoT, medical, smartphones, and surveillance. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of our signature solutions empowered by our Nyxel<sup>®</sup> technology.

# *Nyxel*<sup>®</sup> *Generation 2*

Our Nyxel<sup>®</sup> Generation 2 technology further refines our revolutionary pixel architectures and processes to achieve new records for quantum efficiency in NIR imaging while overcoming other challenges. It provides higher quality image capture, greater detection range and even lower light-source power requirements, enabling our image sensors to see even better and farther while extending battery life.

Key features of our Nyxel® Generation 2 technology include:

- *Thicker silicon pixel architecture*. Building on our successful first-generation technology, Nyxel<sup>®</sup> Generation 2 further increases the silicon thickness to improve NIR imaging sensitivity by up to 25% at 940nm.
- *Extended deep trench isolation*. Extended deep trench isolation solves the cross-talk issue while retaining the modulation transfer function levels of the first-generation technology, without affecting the dark current.
- *Re-optimized scattering layer*. With wafer surface texture refinement, our proprietary Nyxel<sup>®</sup> scattering layer is now re-optimized to improve the extended photon path and increase the photon-to-electron conversion.

Key benefits of our Nyxel® Generation 2 technology include:

- *Higher quality images.* Nyxel<sup>®</sup> Generation 2 sets new industry record with quantum efficiency of 70% at 850nm, and 50% at 940nm, enabling more accurate image data capturing with more details for a wide range of machine vision and night vision applications, along with many other use cases including driver state monitoring and underdisplay sensing for smartphones.
- *Greater image detection range*. With brighter NIR imaging, Nyxel<sup>®</sup> Generation 2 infused products are able to increase the distance of surveillance monitoring, detecting objects sooner and offering more reaction time for AI surveillance systems and human operators.
- *Fewer LEDs, longer battery life.* By optimizing NIR sensitivity, Nyxel<sup>®</sup> Generation 2 image sensors require fewer IR LEDs, enabling machine vision designers to extend battery life and create more compact form factors while lowering system cost.

The Nyxel<sup>®</sup> Generation 2 technology expands NIR imaging performance and enables emerging applications with additional capabilities and is currently applied in automotive image sensors, smartphones and surveillance. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of our signature solutions empowered by the Nyxel<sup>®</sup> Generation 2 technology.

# RGB-IR

Traditional CIS use the Bayer color filter array, where each pixel captures light at a specific wavelength, including visible and infrared ranges. Our RGB-IR technology enables a single sensor to simultaneously capture both high-quality color (RGB) and infrared (IR) images. This allows for standard imaging as well as advanced capabilities such as biometric authentication and gesture detection, while maintaining high-quality color imaging.

Key features of our RGB-IR technology include:

• *Color filter process.* Our RGB-IR technology incorporates advanced proprietary color filter process that improves color fidelity.

- *Pattern flexibility*. Depending on the application requirements, the RGB-IR technology's extended flexibility accommodates 2×2 or 4×4 array patterning consist of 25% of its array to infrared and 75% to RGB to capture RGB and infrared images in one sensor.
- *RGB-IR processing*. We provide a dedicated RGB-IR image processor and a companion ISP chip that extracts RGB and infrared information separately.

Key benefits of our RGB-IR technology include:

- *Day and night vision in one sensor.* The RGB-IR technology's ability to both RGB and infrared images in one device allows for both day and night vision capabilities, making it the ideal choice for today's battery-operated cameras for smart-home systems.
- *Enables biometric authentication.* Today's smartphones, computers and laptops are life hubs requiring high level of access security. The advanced infrared sensitivity of our RGB-IR technology enables facial and gesture recognition.

Our RGB-IR technology targets smartphones, surveillance and computing markets. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of our signature solutions empowered by the RGB-IR technology.

# OmniPixel<sup>®</sup>3-GS

Our global shutter technology, OmniPixel<sup>®</sup>3-GS, features global shutter technology and NIR image detection, enabling simultaneous image detection in all pixels to accurately capture moving objects and reproduce rapid motion, even at high speeds, without any deformation or creating spatial distortion.

Key features of our OmniPixel<sup>®</sup>3-GS technology include:

- *Global shutter technology*. OmniPixel<sup>®</sup>3-GS simultaneously exposes all pixels and reads them out line-by-line for steady, high-speed imaging.
- *NIR sensing*. NIR sensing in OmniPixel<sup>®</sup>3-GS enables high sensitivity to near-infrared light for effective zero-light imaging.
- *OmniPixel<sup>®</sup> architecture*. OmniPixel<sup>®</sup>3-GS leverages our OmniPixel<sup>®</sup> pixel architecture, an industry recognized standard for image quality, feature sets and compact size.

Key benefits of our OmniPixel<sup>®</sup>3-GS technology include:

- *High performance*. Automotive DMS can utilize global shutter technology to synchronize active illumination. OmniPixel<sup>®</sup>3-GS uses global shutter technology to capture and transmit high-speed images for accurate reproductions, regardless of the speed of motion.
- *Captures images invisible to humans.* Image sensors are sensitive to NIR light, which is outside the spectrum that can be seen with the human eye. Our OmniPixel<sup>®</sup>3-GS technology offers outstanding NIR sensitivity to enable effective applications such as eye tracking for computer vision.

Our OmniPixel<sup>®</sup>3-GS technology targets automotive, smart glasses, and surveillance applications. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of our signature solutions empowered by the OmniPixel<sup>®</sup>3-GS technology.

# HDR

Our HDR technology captures extremely high-contrast scenes for optimum content and image quality. It realizes crisp image capture, even with extremely bright and dark areas in one scene, enabling our sensors to produce high-quality images in extreme light conditions and accommodate a broad range of applications.

Key features of our HDR technology include:

- *Adaptive charge conversion*. Our new advanced HDR technology delivers HDR images by adaptive charge detection and conversion technology.
- *No time latency.* Our new advanced HDR technology produces HDR image data from a sensor with a single exposure process. This will remove and minimize artifacts caused by time latencies in traditional HDR technologies.

Key benefits of our HDR technology include:

- *Delivers outstanding image quality.* Image-system solutions for automotive and surveillance applications must be artifact free and need to recognize all objects in the scene. HDR technology achieves this and provides full scene details, regardless of the lighting environment.
- *Enables motion-artifact-free imaging*. Traditional HDR uses multiple images having different exposure times but results in motion artifacts from fast-moving objects. The HDR technology enables motion-artifact-free imaging of extremely high-contrast scenes to deliver high quality scene reproductions.

Our HDR technology caters to surveillance, automotive and mobile applications. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of signature our solutions empowered by the HDR technology.

# **CameraCubeChip®** Technology

Our CameraCubeChip<sup>®</sup> technology integrates advanced image sensors, processor and lenses in a miniature wafer-level, chip-scale camera module, enabling ultra-thin, compact devices with advanced imaging capability.

Key features of our CameraCubeChip® technology include:

- *CISs.* CameraCubeChip<sup>®</sup> leverages both our frontside–illuminated and backside-illuminated CIS technology.
- *Wafer-level optics*. CameraCubeChip<sup>®</sup> applies semiconductor stacking methodology to fabricate wafer-level optical elements as wafer structure layers.
- *Chip-scale packaging*. CameraCubeChip<sup>®</sup>'s wafer-level chip-scale packaging expertise provides a simplified supply chain with standard surface mount handling.

Key benefits of our CameraCubeChip® technology include:

• *Small-form-factor camera solution*. With CameraCubeChip<sup>®</sup>, we are able to deliver fully integrated CIS products with high-quality camera functionality in very small footprints and low profiles to deliver miniature camera modules that fit in tiny spaces, allowing for multiple cameras in one device.

• A simplified supply-chain solution. CameraCubeChip<sup>®</sup> has created a simplified, one-stop shop for wafer-level camera modules that require minimal assembly and handling. The reflowable CameraCubeChip<sup>®</sup> technology can be directly soldered to the printed circuit board with no socket or insertion required, making integration simple.

CameraCubeChip<sup>®</sup> delivers miniature-camera solutions to the medical, smart glasses, and mobile markets. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of our signature solutions empowered by CameraCubeChip<sup>®</sup>.

# LCOS Technology

Our digital LCOS technology provides a fully integrated single chip solution for AR and VR systems and delivers a low-power, high speed and single chip solution in a compact micro display.

Key features of our LCOS technology include:

- *Full digital single chip LCOS panel.* Integrated driver function and frame buffers in a single chip LCOS panel simplifies the system design and makes the system compact with the small form factor.
- *Low power consumption*. All-in-one LCOS *successfully* reduces the power consumption by 40% compared to the two chip solution. It is ideal for wearable devices, such as AR and VR products.
- *High resolution and high frame rate.* Our LCOS technology features high resolution, high frame rate, and up to six color fields to deliver crisp *clear* stable images without image retention.

Key benefits of our LCOS technology include:

- *Low power with small form factor.* Our LCOS technology's integrated driver and frame buffers into a single chip LCOS panel to enable a low power compact system design.
- *Crystal clear images.* Our LCOS technology features high resolution, high frame rate, and up to 6 color fields to deliver crystal clear stable images without image retention.

Our LCOS technology targets AR and VR, smart shelves, pico projectors, automotive and medical applications. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of our signature solutions empowered by the LCOS technology.

# **TDDI Technology**

Our TDDI technology integrates the touch controller chip and the display driver chip into a single chip to provide a compact solution that delivers high performance with low power consumption.

Key features of our TDDI technology include:

- *Compact form delivering brighter display.* Our TDDI modules remove the traditional touch panel layers thereby increasing backlight transmittance, resulting in a brighter and thinner display screen.
- *Embedded micro-processors*. Our TDDI technology utilizes micro-processors to enable more advanced display and touch features, such as low-power wake-up gesture and face proximity detection.

Key benefits of our TDDI technology include:

- *Optimal performance*. Our TDDI technology synchronizes touch and display activities, empowered by time-division multiplexing method, to avoid display and touch signal interference, offering outstanding performance in both display quality and touch sensitivity.
- *Low power consumption.* By integrating two chips into one, our TDDI technology simplifies data communication and interface between touch and display, which enables lower power consumption compared to solutions involving discrete touch controller and display driver chips.
- *Simplified module manufacturing.* Our TDDI technology enables in-cell display which integrates touch sensor circuits into the display panel, hence removing touch panel components and optical lamination from its production process.

Our TDDI technology focuses on smartphone applications. See "—Our Advanced Semiconductor Products and Solutions" for a detailed description of our signature solutions empowered by the TDDI technology.

# LDO Technology

Our LDO technology enables us to offer a variety of LDO products that are highly adaptable for integration into a myriad of complex systems and solutions.

Key features of our LDO technology include:

- *High PSRR and low noise*. Our state-of-the-art LDO technology and design empower LDOs that can deliver PSRR of up to 100 db with very low noise.
- *Fast transient response*. The internal compensation networks of our LDOs are designed with high bandwidth to reduce response time and ensure stable output voltage.

Key benefits of our LDO technology include:

- *Consistent superior performance and clean output.* Our multi-channel LDOs adopt unique design and layout techniques to deliver single-chip solutions that deliver consistent superior performance. The high PSRR, low noise and fast transient response of our LDOs help ensure a clean output voltage, which is a key power supply requirement for high-performance CISs and ISPs.
- *Compact package.* The small package footprint of our LDOs provides our customers with the design flexibility required to meet space restrictions while maintaining low power consumption, making them ideal for integration into smartphones and wearable devices.
- *Easy integration.* Our LDOs use inter-integrated circuit (I2C) communication interface to facilitate straight-forward implementation and system integration.

Our LDOs are widely used to power CISs and other complex systems, and are integrated into smartphones, tablets, automotive, surveillance and network communication applications.

# **TVS Technology**

Our industry-leading TVS technology enables us to offer a comprehensive range of highperformance TVS products, making us a market frontrunner in China.

Key features of our TVS technology include:

- *Lower capacitance*. Our products provide electrostatic protection for high-speed signal interfaces such as USB4.0 and HDMI2.1, and lightning ports with capacitance as low as 0.1 pF. This is enabled by multilayer, high-resistivity epitaxy, a cutting-edge design which minimizes capacitance while reducing parasitic effects.
- *Deep trench isolation.* Our deep trench isolation technology provides improved junction isolation, which simplifies process flow and reduces die size, promoting device miniaturization.
- *Optimized device structure.* Our optimized device architectures help us achieve lower junction capacitance and lower clamping voltage.

Key benefits of our TVS technology include:

- *High performance at smaller device size.* Our deep trench isolation technology effectively suppresses electrical crosstalk in an ultra-small package, while achieving significantly better junction isolation performance compared to conventional products.
- *Lower clamping voltage.* Our innovative device design can reduce clamping voltage, which means our products can function in a wider range of power surge events to offer better protection.

Our TVSs are widely used in smartphones, tablets and PCs, surveillance, and network communication applications.

# Signal Chain Technology

We have accumulated deep expertise and know-how in advanced signal chain technology, which enables larger charging currents and faster data transmission, among other enhanced functions. This technology underlies our diversified USB port protection solutions and has built us a strong technical barrier in the field.

Key features of our signal chain technology include:

- *Unique circuit architecture.* Our unique circuit architecture sets out to drastically reduce the incompatibilities between higher operating voltage and faster data rates.
- *Highly reliable gate drive technology*. Our gate drive technology empowers robust features including fast overvoltage, over-current, and reverse current blocking, high-precision current limiting, and rapid switching between charge/discharge. These features adeptly address the challenges in protecting USB Type-C ports during transmission at a higher voltage and power.

Key benefits of our signal chain technology include:

- *Higher speed with higher operating voltage*. Our ability to combine high-voltage and faster data rates enables better signal strength and efficient, high-performance signal switching.
- *High linearity range.* Better linearity, combined with channel compensation technology, simplifies the design and testing of communication systems.

• *Well-rounded port protection*. Our signal chain technology enhances the reliability of power transmission and signal transmission on the USB interface, offers effective overvoltage and overload protection, and supports special functions such as rapid switching between charging/discharging.

Our years of dedication in signal chain technology have helped us establish a comprehensive portfolio of products that are used in a wide range of applications with a USB interface, including communication systems, automotive and consumer electronics.

# DISTRIBUTION NETWORK OF OUR PRODUCTS

# **Direct sales**

Our direct sales customers primarily consist of OEMs, ODMs and their contract manufacturers. Our sales and marketing team is well-versed in the professional knowledge pertinent to our products, enabling it to effectively communicate the value of our technologies and the performance of our products. We believe that our direct sales help us consolidate and improve our market shares and penetrate different industry verticals effectively. As of December 31, 2024, our sales and marketing team had a total of 702 full-time employees.

Our direct sales are usually conducted under sales and purchase arrangements. We have a buyer-seller relationship with our direct sales customers and we recognize revenue when they accept our products upon delivery.

# Sales through distributors

In line with market practice, we use distributors principally to facilitate the logistics of the transactions and provide credit to end-user customers across our three product lines in our semiconductor design and sales business: advanced digital imaging solutions, display solutions and analog solutions. These distributors assume responsibility for collections, product returns and customer support. Revenues from sales of our products and solutions to our distributors represented approximately 48.9%, 47.6% and 44.6% of our revenues in 2022, 2023 and 2024, respectively. While the overall distributor arrangement is consistent across the three product lines, the specific sales arrangements under each vary slightly, in order to better align with market dynamics and customer needs.

The following table sets forth a breakdown of the number of distributors that generated revenue for us in each of the years indicated for such products and solutions, as well as the number of those distributors retained from the prior year. All such distributors are independent from the Company:

	Year e	Year ended December 3	
	2022	2023	2024
Advanced digital imaging solutions			
Number of distributors that generated revenue for the Group during the year	40	39	38
Number of such distributors retained from prior year	N/A	34	23
Display solutions			
Number of distributors that generated revenue for the Group during the year	7	8	5
Number of such distributors retained from prior year	N/A	5	4
Analog solutions			
Number of distributors that generated revenue for the Group during the year	112	304	275
Number of such distributors retained from prior year	N/A	89	231
Total	159	351	318

Note:

Number of distributors shown above for each product line is calculated without taking into account distributors overlapping across the product lines. We manage our distributors across different product lines independently.

# Key terms of distribution agreements for our products

Set forth below is a summary of the key terms of the agreements with our distributors:

- *Term.* We generally enter into a master distribution agreement with a term of one year, automatically renewable every year unless earlier terminated by either party (typically with 30 to 60 days prior notice).
- *Pricing*. We typically sell products to our distributors at our fixed prices in effect at the time of shipment.
- *Minimum purchase amount*. There is typically no minimum purchase amount requirement.
- *Scope of distribution*. The distribution agreements are non-exclusive, and international distributors typically are restricted to distribute in designated territories.
- *Sub-distribution*. Our distributors are generally not restricted from engaging sub-distributors. During the Track Record Period and up to the Latest Practicable Date, to our knowledge, none of our distributors had engaged sub-distributors in selling our products and solutions.
- *Limitations on return or exchange*. We generally do not accept returns or exchanges from our distributors, except under limited circumstances, such as return for discontinued or obsolete products.
- *Payment and credit terms*. Payment for products is generally due within 30 to 45 days from the each invoice date.
- *Termination*. Typically, either party may terminate any renewal with prior notice. We may also terminate such agreements immediately upon any material breach by, or the insolvency of, the distributor.

#### Distribution model and accounting treatment

We recognize revenue when our distributors take possession of and accept the products. Until revenue is recognized, these products remain classified as part of our inventories.

Once ownership of the products has been transferred to the distributor, returns are no longer permitted, and any requests for resolution must be addressed through replacement procedures outlined in the distribution agreement. Furthermore, we are not obligated to assist distributors in managing or disposing of unsold inventory upon the termination of their distribution agreements. During the Track Record Period and up to the Latest Practicable Date, we had not repurchased any products previously sold to distributors.

#### Our management of distributors

As part of our commitment to upholding high operational and brand standards, we continuously assess our distributors throughout the year. We have implemented a thorough selection process to ensure that prospective distributors are well-equipped to represent our brand and effectively market our products. Key criteria in our evaluation include their existing customer base, core product offerings, established customer relationships, and warehousing capacity.

We collaborate closely with our distributors to provide ongoing operational support aimed at driving their success and fostering sustainable growth. This includes regular training sessions to enhance their team's product knowledge, as well as strategic guidance on procurement to help them manage inventory levels more efficiently.

# MANUFACTURING

# Wafer Fabrication

Our semiconductor products are fabricated using standard CMOS processes, which permit us to engage independent wafer foundries to manufacture our semiconductors. We primarily outsource our wafer manufacturing to reputable wafer manufacturers. See "—Our Flexible and Efficient Fabless Business Model" for more information.

# **Color Filter Application**

The majority of our image sensor sales were color image sensors, which, in addition to a microlens, require a color filter to be applied to the wafer before packaging. The color filter application uses a series of masks to place red, green and blue dyes on the individual pixels in an industry-standard Bayer pattern. In the final step, a micro lens is applied to each pixel. We outsource these manufacturing steps primarily to reputable image sensor manufacturers.

# Wafer Probe Testing

After wafer fabrication, color filter application, if required, and micro-lens application, wafers are designated for either unpackaged or packaged deliveries. For unpackaged deliveries, referred to as chip-on-board, or COB, the wafers are tested using a process called wafer probe testing. The process identifies the good die on each wafer. We outsource wafer probe testing primarily to reputable testing facilities, which we later use to prepare the good die as identified during the wafer probe testing for final delivery in a format referred to as reconstructed wafers.

# Packaging

We support various packaging methods that are widely used for optical image sensor chips. In the case of chip scale packaged products, or CSP, the wafers are packaged and then diced into chips. These packages have a glass lid to allow light to pass through to the image sensor array. We rely primarily on reputable packaging service providers.

# **Final Testing**

High-volume final product testing is a critical component in the manufacturing of our image sensors. Possessing this capability represents a significant barrier to entry for potential competitors. Conventional CMOS test equipment is not sufficient for image sensor testing, as it must verify not only standard logic and electrical functions, but also the ability to capture and process optical images. To meet these specialized requirements, we have installed high-throughput, automated final test systems — built to our custom specifications — at our testing facility in Shanghai, China. These systems are used for both our packaged products and our CameraCubeChip<sup>®</sup> imaging devices. The test equipment features automated handling, integrated lighting and lens systems, interchangeable image sources, and automated output sorting based on functionality. The system is fully programmable, allowing for quick adjustments to testing needs. Our in-house final testing facilities allow us to establish an effective product-test-feedback loop, enhancing quality control and providing a capacity buffer in addition to outsourced testing processes.

#### **Product Quality Assurance**

We are committed to ensuring product quality throughout every stage of the design and manufacturing process. All of our designs undergo thorough circuit simulation before being implemented in silicon. Prior to moving a new product into full production, we fabricate test wafers, package and evaluate test chips, and conduct comprehensive final product testing. Initial production runs are kept small until enough units have successfully completed the entire manufacturing and testing process and met all required product specifications. Only then do we proceed with full-scale production.

Each of our subcontractors is qualified through a series of industry-standard environmental stress tests, as well as through audits and assessments of their quality systems and manufacturing capabilities. We also actively participate in quality and reliability monitoring at every stage of the production cycle, reviewing electrical parametric data provided by our foundries and other subcontractors to ensure consistent performance and reliability.

#### **INVENTORY MANAGEMENT**

We regularly monitor inventory quantities on hand and record provisions for excess and obsolete inventories based primarily on historical usage rates and our forecast of future demand for our products. We attempt to control our inventory levels so that we do not hold inventories in excess of demand at the end of each fiscal quarter.

Our inventory turnover days were 252 days, 203 days and 131 days in 2022, 2023 and 2024, respectively. To improve our inventory efficiency, we have adopted a unified warehousing and distribution system and continuously enhance inventory turnover. We have developed strong

capabilities in regard to order execution, global supply chain management and efficient delivery, and have built the sales and operations planning cockpit and the commitment mechanism of sales and manufacturing with order pre-scheduling rules.

We have adopted business-to-business electronic data exchanges that enables us to manage our inventory and facilitate our order requests to our suppliers. Our suppliers are provided with improved demand planning through analyzes of transaction activities, which allows us to make reasonable forecasts and maintain efficient manufacturing or procurement processes. With the collaborative planning, forecasting and replenishment model, visualization of overseas orders, and other features, we can improve the execution and delivery efficiency of product orders at a much lower cost, better positioning us to maintain an optimal inventory level to satisfy market demand in a timely manner.

# **RESEARCH AND DEVELOPMENT**

As of December 31, 2024, we had a total of 2,387 full-time employees engaged in research and development. In 2022, 2023 and 2024, our research and development investments included research and development expenses which amounted to RMB2.5 billion, RMB2.2 billion and RMB2.7 billion, respectively and capitalized development expenditure which amounted to RMB683.8 million, RMB692.5 million and RMB623.2 million, respectively.

Our research and development programs focus on the development of advanced digital imaging, display, and analog solutions for multiple applications and industries, in particular those enabling smoother human/device interfacing solutions within the automotive, smartphone, medical, surveillance, and emerging markets. We have established R&D centers across the globe. Our engineers and service teams collaborate closely with customers in each region to address their unique design requirements and support cutting-edge product development processes. By gathering first-hand industry insights, we not only design solutions to regional needs but also drive inspiration for our broader R&D initiatives. We also intend to pursue strategic relationships and acquisitions to enhance our research and development capabilities, leverage our technology, and shorten our time to market with new technological applications.

We conduct ongoing research and development programs that focus on advancing our existing technologies, improving our current solutions, developing new products, improving design and manufacturing processes, enhancing the quality and performance of our products and solutions, and expanding our technologies to serve new markets. Our goal is to provide our customers with innovative products and solutions that address their needs and improve their competitive positions. Our relentless R&D efforts are exemplified by an extensive array of pixel architectures and technologies we have developed, highlights of which are described under "—Our Industry-leading Pixel Architecture and Technology Portfolio." See also "—Our Advanced Semiconductor Products and Solutions" for more details on the innovative semiconductor products and solutions we launched in recent years.

Our research, design, and engineering teams frequently work directly with our customers to design custom solutions for specific applications. We focus on enabling our customers to overcome their technical barriers and enhance the performance of their products. We believe our engineering know-how and electronic systems expertise provide significant benefits to our customers by enabling them to concentrate on their core competencies of production and marketing.

# **OUR CUSTOMERS**

Our end-use customers include many of the world's leading smartphone OEMs and ODMs, auto manufacturers, major notebook OEMs and ODMs, large medical equipment companies, surveillance devices manufacturers and a variety of consumer electronics manufacturers, and also directly through their contract manufacturers and supply chain partners. Our demonstrated track record of technological leadership, design innovation, product performance, cost-effectiveness, and on-time deliveries have resulted in our leadership position in providing semiconductor products and solutions. We believe our strong relationship with our OEM and ODM customers, many of which are also currently developing solutions which are focused in several of our target markets, will continue to position us as a source of supply for their product offerings. We also use reputable distributors in selling our products, which is common practice in the industry.

Both the OEMs and ODMs, as well as their partners may determine the design and pricing requirements and make the overall decision regarding the use of our semiconductor solutions in their products. Our customers and distributors place orders with us for the purchase of our products, take title to the products purchased upon acceptance. The majority of these customers do not have return rights except for warranty provisions.

Below is the breakdown of our revenue derived from our five largest customers for each year of the Track Record Period, and their respective background information:

Customer	Revenue	Percentage of total revenue	Major products purchased from us
	(RMB million)	(%)	
For the year ended December 31, 2022			
Customer $A^{(1)}$	4,969.7	24.8	Advanced digital imaging solutions
Customer $B^{(2)}$	2,006.9	10.0	Advanced digital imaging solutions
Customer C <sup>(3)</sup>	1,787.9	9.0	Advanced digital imaging solutions
Customer D <sup>(4)</sup>	1,345.4	6.7	Advanced digital imaging solutions
Customer E <sup>(5)</sup>	944.8	4.7	Advanced digital imaging solutions
Total	11,054.7	55.2	
Customer	Revenue	Percentage of total revenue	Major products purchased from us
	(RMB million)	(%)	
For the year ended December 31, 2023			
Customer A	6,291.2	30.0	Advanced digital imaging solutions
Customer B	1,711.2	8.1	Advanced digital imaging solutions
Customer E	1,340.7	6.4	Advanced digital imaging solutions
Customer C	1,255.9	6.0	Advanced digital imaging solutions
Customer D	1,135.8	5.4	Advanced digital imaging solutions
Total	11,734.8	55.9	
Customer	Revenue	Percentage of total revenue	Major products purchased from us
	(RMB million)	(%)	
For the year ended December 31, 2024			
Customer A	7,136.7	27.8	Advanced digital imaging solutions
Customer F <sup>(6)</sup>	2,245.2	8.7	Advanced digital imaging solutions
Customer E	1,303.7	5.1	Advanced digital imaging solutions
Customer D	1,223.1	4.8	Advanced digital imaging solutions
Customer C	1,189.2	4.6	Advanced digital imaging solutions

13,097.9

51.0

Total

Notes:

- (1) Customer A is a world leading group company that engages in the import, export, and wholesale distribution of electronic components, semiconductors, and microcomputers.
- (2) Customer B is a world leading group company that engages in the design, development, and manufacturing of optical components, optoelectronic modules, and optical instruments.
- (3) Customer C is a world leading group company that engages in the research, development, manufacture and sale of electronic components, communication, networking, mobile, consumer, imaging and multimedia instruments and accessories.
- (4) Customer D is a world leading group company that engages in the distribution and supply of electronic components, including semiconductors, passive components, electromechanical devices, and connectors.
- (5) Customer E is a world leading group company that engages in the design, development, and manufacturing of automotive switches and detection systems, serving global OEMs and the aftermarket.
- (6) Customer F is a world leading group company that engages in providing information and communications technology infrastructure and smart devices.

To the best knowledge of our Company, all of our top five customers during the Track Record were independent third parties. None of our Directors, their respective associates or any shareholder who, to the knowledge of our Directors, owned more than 5% of our issued share capital as of the Latest Practicable Date, has any interest in any of our five largest customers during the Track Record Period.

# **OUR SUPPLIERS**

Supplier C .....

Supplier  $F^{(6)}$  ....

Supplier  $G^{(7)}$  ....

Total .....

We utilize a fabless business model, as such, for our semiconductor products and solutions business. Our suppliers are primarily third-party foundries and packaging and testing service providers.

Below is the breakdown of our five largest suppliers for each year during the Track Record Period, and their respective background information:

Supplier	Procurement amount	Percentage of total procurement	Products sold to us
	(RMB million)	(%)	
For the year ended December 31, 2022			
Supplier A <sup>(1)</sup>	5,535.6	29.8	Wafers
Supplier B <sup>(2)</sup>	1,873.7	10.1	Wafers
Supplier $C^{(3)}$	1,838.4	9.9	Wafers
Supplier D <sup>(4)</sup>	800.7	4.3	Color filter
Supplier E <sup>(5)</sup>	727.0	3.9	Printed circuit board
Total	10,775.4	58.0	
Supplier	Procurement amount	Percentage of total procurement	Products sold to us
	(RMB million)	(%)	
For the year ended December 31, 2023			
Supplier A	2,374.0	24.2	Wafers
Supplier B	2,227.4	22.7	Wafers

480.7

451.1

449.8

5,983.0

4.9

4.6

4.6

61.0

Wafers

Capacitor and inductor

Display screen

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# **BUSINESS**

Supplier	Procurement amount	Percentage of total procurement	Products sold to us
	(RMB million)	(%)	
For the year ended December 31, 2024			
Supplier B	4,833.4	26.0	Wafers
Supplier A	3,828.5	20.6	Wafers
Supplier C	1,613.9	8.7	Wafers
Supplier D	671.4	3.6	Color filter
Supplier H <sup>(8)</sup>	528.6	2.9	Connector
Total	11,475.8	61.8	

Notes:

(1) Supplier A is a world leading group company that engages in IC manufacturing and foundry services supporting industries such as automotive and electronics.

(2) Supplier B is a world leading group company that engages in IC manufacturing, packaging, and testing, serving consumer electronics, communications, and automotive industries.

(3) Supplier C is a world leading group company that engages in IC manufacturing.

(4) Supplier D is a world leading company that engages in the design, development, and manufacturing of image sensors and optical components.

(5) Supplier E is a world leading group company that engages in the design, development, and manufacturing of PCBs and IC substrates.

(6) Supplier F is a world leading group company that engages in the design, development, and manufacturing of electronic components such as MLCCs, camera modules, and package substrates.

(7) Supplier G is a world leading group company that engages in the design, development, and manufacturing of display products such as OLED and LCD panels.

(8) Supplier H is a world leading group company that engages in the investment and management of electronic connector manufacturing and sales operations.

To the best knowledge of our Company, all of our five largest suppliers during the Track Record were independent third parties. None of our other Directors, their respective associates or any shareholder who, to the knowledge of such Directors, owned more than 5% of our issued share capital as of the Latest Practicable Date, has any interest in any of our top five suppliers during the Track Record Period.

We believe we have sufficient alternative suppliers that can provide us with substitutes of comparable quality and prices. During the Track Record Period, we did not experience any disruption to our business as a result of any significant shortage or delay in supply of the products we sourced from our suppliers.

#### **TRANSFER PRICING ARRANGEMENTS**

During the Track Record Period and up to the Latest Practicable Date, we entered into certain transfer pricing arrangements ("**Transfer Pricing Arrangements**"), primarily including intercompany loans and allocation of general and administrative expenses, and the transfer of interest in certain intellectual properties.

We carried out the Transfer Pricing Arrangements in line with our transfer pricing policy and followed the fundamental arm's length principle as stated in the Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations published by Organization for Economic Cooperation and Development.

During the Track Record Period and up to the Latest Practicable Date, we were not subject to any penalties, investigations, inquiries or transfer pricing audits conducted by local tax authorities in connection with the Transfer Pricing Arrangements. Our Directors believe that the Transfer Pricing Arrangements adhered to the arm's length principle and we remained compliant with applicable transfer pricing laws and regulations during the Track Record Period and up to the Latest Practicable Date.

#### **BRANDING AND MARKETING**

# Branding

In January 2022, we announced the adoption of our new global brand and logo: **OMNIVISION**<sup> $\circ$ </sup>. This new branding reflects our latest expansion in product offerings and capabilities, leveraging the collective expertise of OmniVision Technologies' industry-leading digital imaging capabilities, our established analog portfolio and the TDDI Business we expanded into in 2020. This new branding name symbolizes outstanding service, reliability and speed. Emphasis is continually placed on promoting and protecting our brand, one of our most important assets.

We strive to enhance our brand awareness through maintaining high service quality and other marketing initiatives. We believe that the most effective form of marketing is to continually enhance our customer experience. Specifically, our sales and marketing strategy is designed to build brand recognition, increase demand for our products and solutions, build strong customer loyalty, drive cross-selling, and develop incremental business opportunities.

Leveraging our brand value and our own marketing efforts, we have been able to build a large base of loyal customers. We employ a variety of programs and marketing activities, such as attending well-acclaimed industry conventions and exhibitions, to promote our brand and our products and solutions.

# Sales and Marketing/Customer Technical Support

We focus our sales and marketing strategy on establishing business and technology relationships principally with OEMs, ODMs and their contract manufacturers in order to work closely with them on future semiconductor solutions that align with their product road maps. Our engineers collaborate with our customers' engineers to create products that comply with their specifications and provide a high level of performance at competitive prices. We also market our products directly to automobile, monitor, notebook and smartphone manufacturers so that our products can be qualified for their specifications and designed into their products. Additionally, we form strategic partnership with customers for our LCOS micro displays, 3D sensing and AI image sensing to penetrate into the emerging market. We believe we need close alliance with our customers to build up ecosystem for new applications.

Our sales and marketing team boasts a high level of technical expertise and industry knowledge, enabling them to effectively support a lengthy and complex sales process. This team includes a highly trained group of product managers and field applications engineers who are well-equipped to address customer needs and provide solutions. Additionally, our team is armed with extensive strategic marketing experience and a strong ability to identify and capitalize on emerging market trends, ensuring we stay ahead in a dynamic industry landscape. We also provide comprehensive technical support and assistance to potential and existing customers, so as to facilitate a smooth integration of our solutions into their products. We believe that the depth and quality of this design support are key to improving customers' time to market and maintaining a high level of customer satisfaction.

We attend periodic technology forums that facilitate direct interaction between their product development teams and our research and development teams. These forums not only provide us with valuable insights into our customers' long-term needs but also enable our customers to align their plans

with the advancements and capabilities we can deliver. Also, our customers are increasingly utilizing contract manufacturers while retaining design and key component qualification activities. As this trend matures, we continually upgrade our sales operations and manufacturing support to maximize our efficiency, flexibility and coordination with our customers.

We work with our customers to design integrated solutions, including both hardware and software applications, to enhance the performance and efficiency of their products. Due to the deep integration of both hardware and software applications, we work extensively with our customer's management and engineers to help optimize our solution. Our customer will then decide when to start volume production for the specific product based on various factors including the competitiveness of their own product, the market demand for the product and other factors. We believe that once our solutions are incorporated into our customer's design, it will likely be used for the life cycle of the customer's product as a redesign, and subsequent requalification, of the product would generally be time-consuming and expensive. After our customer begins production of the IC, our application engineers, who are often geographically close to our end customer's management team helps us to understand our customers, fosters customer loyalty and increases visibility of the services that we can offer.

# **INTELLECTUAL PROPERTY**

Our success and ability to compete depend in part on our ability to maintain the proprietary aspects of our technologies and products. We rely on a combination of patents, trademarks, trade secrets, copyrights, confidentiality agreements, and other statutory and contractual provisions to protect our intellectual property, but these measures may provide only limited protection.

As of December 31, 2024, we held 4,865 authorized patents, including 4,659 invention patents, 204 utility model patents and two design patents, as well as 135 layout designs and 83 software copyrights. Our inability to adequately protect our intellectual property rights could materially and adversely affect our competitive position, business, financial condition and results of operations. See also "Risk Factors—Risks Relating to Our Business and Industry—Our ability to compete will be harmed if we are unable to protect, maintain or enforce our intellectual property rights adequately. Our patents, trade secrets, know-how and other proprietary information may be stolen, used in an unauthorized manner, or compromised, which could materially and adversely affect our results of operations, financial condition, business and prospects."

As of the Latest Practicable Date, our Directors believe that there is no legal impediment for the renewal of the above patents, copyrights, trademarks and domain names that would materially and adversely affect our business. For details, please refer to the paragraph headed "Appendix VI— Statutory and general information—2. Further Information about Our Business—B. Our Material Intellectual Property Rights" in this document.

To protect and enforce our intellectual property rights, we enter into framework agreements with our suppliers imposing confidentiality obligations to protect our intellectual property rights during the manufacturing.

We have adopted a number of internal control policies and measures to protect our intellectual property rights and trade secrets. For example, we deploy a group-level digital platform to monitor and

manage the full lifecycle of our patents, trademarks, copyrights, domain names and other intellectual property rights. Our intellectual property team proactively take initiatives to identify potential infringement upon our intellectual property rights and take appropriate actions based on our findings. We rely on confidentiality agreements to safeguard our interests in proprietary know-how that are not patentable and manufacturing processes for which patents are difficult to enforce. The contracts we entered into with our employees, suppliers, distributors, and other strategic partners are subject to review and approval by our in-house legal team, who is tasked with ensuring that sufficient protection is built into the contracts to prevent unauthorized disclosure. However, there is no guarantee that we will prevail on patent infringement claims against third parties, and we cannot assure you that our products do not infringe patents held by others or that they will not in the future. To the best of our knowledge, information and belief, during the Track Record Period and up to the Latest Practicable Date, we had not been subject to any material intellectual property rights claims by third parties.

# **COMPETITION**

The markets for our products and solutions are, in general, intensely competitive, characterized by continuous technological change, evolving industry standards, and fluctuating average selling prices.

Our competitors include large domestic and international semiconductor companies who may have greater presence in key markets, a more established and larger customer base, and, in general, better access to other resources than we do. As a result, they may be able to adapt more quickly to new or emerging technologies and customer requirements or devote greater resources to the promotion and sale of their products. For a description of the semiconductor industry's market environment, please refer to the "Industry Overview" section.

# DATA PRIVACY AND PROTECTION

Information security is a critical defense for our Company's stable operations and sustainable development. To strengthen our information security management system, we have implemented key policies and frameworks, including the Information Security Management System, the Policy for Information Security, and Information Security Governance. We established an Information Security Management System (ISMS) and enhanced related policies and documents under the ISO 27001 framework. Additionally, we integrated our risk management framework into the ISMS to proactively assess and address cybersecurity risks, protecting our assets and minimizing vulnerabilities. We also adopted cloud backup solutions to mitigate data loss risks and reinforce data security. We are fully committed to complying with the laws and regulations of the regions where we operate, including China.

Guided by accountability and due diligence, we have formed an information security management team under the Office of Information Security. This team includes Security Awareness, Vulnerability Management, Security Operations, and Security Engineering and Architecture units. We clarified roles and responsibilities within the information security framework and enforced an information security responsibility system. Furthermore, we implemented various daily operational measures to reduce information leakage risks. By continuously enhancing our employees' emergency response capabilities and information security awareness, we effectively safeguard our information assets.

We have enhanced measures to prevent information leakage, including implementing network segmentation and document classification to eliminate potential channels for information leakage. Additionally, we continue to advance key technologies to safeguard our information systems against network threats.

# **OUR CORPORATE SOCIAL RESPONSIBILITY**

#### **Our ESG Strategy**

Our ESG strategy consists of three pillars: (i) green operations, (ii) talent orientation and (iii) pioneering innovation.

#### Green operations

We are committed to addressing environmental problems, such as energy management, waste, water resource and wastewater discharge, exhaust emission and climate change. We integrate the concept of environmental protection into our production and operation activities. Through the establishment of a sound environmental management system and raising employees' awareness of environmental protection, we aim to achieve sustainable development of our company.

On energy management, our Songjiang Park in Shanghai, China has established an ISO 50001 energy management system. With "compliance with regulations, scientific management, energy saving and emission reduction, continuous improvement" as the system policy, we continue to invest in energy and water saving management and technology to improve efficiency and continuously optimize resource management.

For hazardous waste generated in the production process, we implement classification management and centralized disposal, and entrust it to units qualified to dispose of hazardous waste for collection, storage, transportation and disposal. For general waste, we take optimal measures to responsibly dispose, fully recycle, and/or reuse recyclable waste.

In addition, on water resources and wastewater discharge, exhaust emissions, our Songjiang Park in Shanghai, China has established an ISO 14001 environmental management system. We implement the environmental management policy of "optimizing resources, reducing pollution and waste, making continuous improvements, protecting the environment and complying with regulations" to minimize the impact of our production and operation activities on the environment.

# Talent orientation

Along with a strong reputation among customers and the general public, we are widely acknowledged as a great place to work. It is our people—our greatest asset—that give us our strong reputation.

We have always striven to provide employees with comprehensive social benefits, a diverse work environment and a wide range of career development opportunities. We are committed to providing a safe and healthy workplace, which is backed by strict policies, robust team member education and safety recognition awards, along with continued investments in technology. We support the physical and behavioral health and well-being of our team members and their families by providing an array of programs that help our people and their loved ones stay at their best level of health. In

addition, we are committed to establishing competitive and fair remuneration. In order to effectively motivate our staff, we continually refine our remuneration and incentive policies through market benchmarking. We conduct performance evaluations for our employees annually to provide feedback on their performance. Compensation for our staff typically consists of base salary and a performance-based bonus.

Our workforce is as diverse as the community we serve, and we believe that everyone deserves respect. We are committed to the education, recruitment, development and advancement of diverse team members worldwide, and are recognized for our commitment to those efforts. We not only focus on the improvement of employees' professional development, but have made efforts to incentivize our employees to have a "sense of goals" and "sense of fulfillment." Additionally, we place special emphasis on the building of a talent pipeline and cohesive organizational culture. We have established a comprehensive system for employee training and development, covering leadership, general competencies, professional competencies, and others. Our comprehensive training program includes corporate culture, employee rights and responsibilities, team building, professional behavior, job performance, management skills, leadership, and administrative decision-making.

# Pioneering innovation

We are committed to product innovation and research and development, constantly increasing our investment in R&D, and strengthening our investment in areas such as green products. We systematically protect our intellectual property and trade secrets. We optimize our customer service and continuously strive to improve customer satisfaction.

As one of the world's leading semiconductor design companies, we are committed to optimizing our supply chain management, improving the environmental and social performance of our suppliers and to cooperating with all business partners to create a sustainable business model. We convey the concepts of product quality management, environmental protection and corporate social responsibility to our suppliers. We embrace the spirit of local sourcing and always adhere to the social responsibility of banning hazardous substances and not using conflict minerals to reduce the risks associated with the environment and society. We continuously strive to work with our suppliers to expand our socially responsible ecological network and work together for sustainable operations.

#### **Our Key ESG Topics**

Following a materiality assessment procedure, we have identified six key ESG topics, namely Talent Attraction and Retention, Health and Safety of Employees, Business Ethics, Sustainable Supply Chain, Customer Service and Product Innovation and R&D, which correspond to the ESG management actions that have been taken to fulfill our ESG commitment and objectives set for each of the key ESG topics.

# **Our ESG Governance Structure**

#### ESG committee

For the long-term sustainability of our company, we have decided to change the name of the Strategy and Development Committee to the Strategy and ESG Committee, effective upon the completion of the **[REDACTED]**, to incorporate the responsibilities of evaluating and determining the

ESG-related risks and opportunities, and ensure an appropriate and effective ESG risk management system is in place. Additionally, it should also report ESG-related risks and opportunities to the Board of Directors and ensure the effectiveness of the system.

We have also established an ESG Working Group which is composed of four groups, covering environment, product, employee and corporate governance, which serve to strive for our sustainability objectives. These groups are responsible for implementing ESG management policies approved by the Strategy and ESG Committee, managing and reporting ESG issues, and reporting on the progress of ESG work to the Strategy and ESG Committee.

# Diversified governance

We believe that a diverse governance structure benefits our business operations and considers diversity within that governance structure a key element necessary to maintain our long-term competitiveness and promote sustainable growth. We have formulated the Board Diversity Policy, and the nomination committee selects board members based on a range of diversity categories, taking into account our business model and specific needs, including but not limited to gender, age, ethnicity, language, cultural background, educational background, industry experience or professional skills. We have designed appropriate procedures to develop board members with broader backgrounds, more diverse experience and skills.

# Performance and Remuneration

To continuously promote our sustainability, we have formulated the "Administrative Measures for Remuneration and Performance of Senior Management," which links the performance appraisal of executive directors, including senior managers, with business performance, compliance management, and environmental and social responsibilities. The environmental and social performance includes, but is not limited to, contributions in energy conservation and emission reduction, talent attraction and retention, sustainable supply chain, business ethics, product innovation and R&D.

To further regulate the remuneration incentive policy for our senior executives, and to prevent unethical business practices and violations of law, we have formulated a clear clawback policy to reasonably manage remuneration risks.

# **Our ESG KPIs**

During the Track Record Period, our energy consumption, Greenhouse Gas (GHG) emissions and water consumption are as follows:

KPI	2024	2023	2022
Total energy consumption (MWh)	92,122.87	77,765.23	65,063.08
Direct energy consumption (MWh)	3,614.36	3,037.14	3,339.21
Indirect energy consumption (MWh)	88,508.51	74,728.09	61,723.87
Energy consumption intensity (MWh per capita)	17.14	16.20	13.06
Total GHG emissions (tCO <sub>2</sub> e)	39,834.32	33,578.59	27,091.34
Direct GHG emissions (Scope 1) (tCO <sub>2</sub> e)	729.96	613.38	674.39
Indirect GHG emissions from energy consumption (Scope 2) ( $tCO_2e$ )	39,104.36	32,965.21	26,416.95
GHG emission intensity (tCO <sub>2</sub> e per capita)	7.41	7.00	5.44
Water consumption (tons)	352,101.99	353,600.67	250,511.39
Water consumption intensity (ton per capita)	65.50	73.67	50.30

Notes:

- 1. The scope of the environmental data in this section covers the main offices of our Company, including Shanghai Zhangjiang Park, Shanghai Songjiang Park, Zhejiang Shaoxing Park, Silicon Valley in the United States.
- 2. The main categories of applicable energies include natural gas used for offices and factories (direct energy) and electricity purchased (indirect energy)
- 3. The Company has revised some data on indirect energy consumption in 2023 and recalculated the data related to energy consumption in 2023.
- 4. Content and category of GHG emissions collected in Scope 1 and Scope 2 include: natural gas used for offices and factories (Scope 1) and electricity (Scope 2). GHG emissions are presented in CO2 equivalents, and the GHG emission of natural gas and the electricity purchased from Mainland China shall be calculated according to the Guidelines for Accounting and Reporting Greenhouse Gas Emissions of Other Industrial Enterprises (Trial) issued by the NDRC. GHG emissions in Scope 2 were calculated based on the latest regional average CO2 emission factor for electricity announced by the Ministry of Ecology and Environment. Additionally, we recalculated the data for 2022 and 2024 based on the latest regional average CO2 emission factor for electricity from overseas sources were calculated using the electricity emission factor published by the International Energy Agency in 2023.
- 5. During the Track Record Period, due to the Company's production expansion and the addition of equipment, there was an increase in total energy consumption, total GHG emissions, and their intensities compared with 2023. In addition, we installed reclaimed water reuse facilities during the Track Record Period, which improved water use efficiency. As a result, even though the number of employees increased, both the total water consumption and its intensity decreased compared with 2023.

#### **EMPLOYEES**

Our future success will depend, in part, on our ability to continue to attract, retain and motivate highly qualified technical and management personnel. As of December 31, 2024, we had a total of 5,376 full-time employees. The following is a breakdown of our employees by function as of the dates indicated:

			As of Decen	ıber 31,	,						
	2022	2	2023		2024	2024					
Function	Number of Employees	% of Total	Number of Employees	% of Total	Number of Employees	% of Total					
Research and development	2,148	43.1	2,053	42.8	2,387	44.4					
Production	1,518	30.5	1,585	33.0	1,790	33.3					
Sales and marketing	746	15.0	684	14.3	702	13.1					
General and administrative	401	8.1	328	6.8	351	6.5					
Logistics	167	3.3	150	3.1	146	2.7					
Total	4,980	100.0	4,800	100.0	5,376	100.0					

As required by PRC laws and regulations, we participate in various employee social security plans that are organized by municipal and provincial governments, including, among other things, pension, medical insurance, unemployment insurance, maternity insurance, on-the-job injury insurance and housing fund plans through a PRC government-mandated benefit contribution plan. We are required under PRC law to make contributions to employee benefit plans at specified percentages of the salaries, bonuses and certain allowances of our staff, up to a maximum amount specified by the local government from time to time.

We typically enter into standard employment agreements and confidentiality agreements or clauses with our senior management and core personnel. None of our employees is represented by a collective bargaining agreement, and we have never experienced any material work stoppage.

#### **Properties**

We have a global presence that allows us to support our customers around the world. Our global corporate headquarters is located in a property we own in Shanghai, with a gross floor area of

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#### **BUSINESS**

approximately 51,641.0 square meters. We also own land and properties in Songjiang, Shanghai and Santa Clara, California where our offices and research and development facilities are located. Our other facilities around the world are located on leased properties. As of the Latest Practicable Date, we had not received any claims from third-parties disputing the ownership of our properties.

The following table sets forth an overview of the key properties that we owned as of December 31, 2024.

Gross Floor Area	Main Use
101,193.0 sq ft	Office
66,669.4 sq m	Factory, Warehouse (under construction)
51,641.0 sq m	Office, Rental
39,596.8 sq m	Factory, Warehouse
21,682.5 sq m	Office (under construction)
36,301.3 sq m	Factory, Warehouse
12,932.8 sq m	Factory, Warehouse
9,279.02 sq m	Rental
570.5 sq m	Office
403.4 sq m	Office
	Gross Floor Area 101,193.0 sq ft 66,669.4 sq m 51,641.0 sq m 39,596.8 sq m 21,682.5 sq m 36,301.3 sq m 12,932.8 sq m 9,279.02 sq m 570.5 sq m 403.4 sq m

# **INSURANCE**

We maintain insurance policies that are required under the laws and administrative regulations of the jurisdiction where we operate as well as based on our assessment of our operational needs and industry practice. We maintain insurance policies on our buildings, equipment and inventories covering property damage and damage due to, among other events, fires, typhoons, earthquakes and floods. We maintain these insurance policies on our facilities and on transit of inventories. Additionally, we maintain director and officer liability insurance. In compliance with the applicable PRC laws and regulations, we also provide social security insurance including pension insurance, unemployment insurance, work-related injury insurance, maternity insurance and medical insurance for our employees. We do not have insurance for business interruptions, nor do we maintain product liability insurance or have key person insurance.

# LEGAL PROCEEDINGS AND COMPLIANCE

#### **Legal Proceedings**

During the Track Record Period and up to the Latest Practicable Date, we had not been and were not a party to any material legal, arbitral or administrative proceedings, and we were not aware of any pending or threatened legal, arbitral or administrative proceedings against us or our Directors that could, individually or in the aggregate, have a material adverse effect on our business, financial condition and results of operations. From time to time, we may be subject to legal proceedings and claims in the ordinary course of business, including patent, commercial, professional liability, product liability, employment, class action, and other litigation and claims, as well as governmental and other regulatory investigations and proceedings. In addition, third parties may from time to time assert claims against us in the form of letters and other communications. The results of any future litigation or administrative proceedings cannot be predicted with certainty, and regardless of the outcome, litigation and administrative proceedings can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

# Compliance

During the Track Record Period and up to the Latest Practicable Date, we had not been and were not involved in any material non-compliance incidents that have led to fines, enforcement actions or other penalties that could, individually or in the aggregate, have a material adverse effect on our business, financial condition and results of operations.

# **RISK MANAGEMENT AND INTERNAL CONTROL**

#### **Internal Control Mechanism**

We have adopted and implemented various policies and procedures to ensure rigorous risk management and internal control, and we are dedicated to continually improving these policies and procedures. Pursuant to our risk management policy, our key risk management objectives include: (i) identifying different types of risks; (ii) analyzing the identified risks, setting appropriate risk resistant level, and designing responsive policies and procedures; (iii) establishing a risk control and compliance management professionals organization; (iv) leveraging our IT systems to improve the accuracy and efficiency of related controls; (v) regularly reviewing risk management policies and relevant internal control systems to adapt to changes in regulatory updates, market conditions or our operating activities; and (vi) monitoring implementation of those designed policies and procedures.

Our risk management and internal control policies and procedures cover various aspects of our business operations, such as quality control, financial reporting, information disclosure, information system, internal control, human resources and regulatory risk management. We have taken various internal control measures and will continue to monitor and enhance our internal control policies to ensure our compliance with the requirements under the listing rules of the Shanghai Stock Exchange, the SIX Swiss Exchange and the Hong Kong [REDACTED]. We have formulated and implemented the Policy on Inside Information and Securities Dealing, which provides that (a) the Directors, officers or employees of the Company shall keep inside information confidential; and (b) the Company's financial results or forecasts, its annual, half-year and quarterly reports, or related information shall not be disclosed prior to the publication of announcements by our Company. Among others, the Policy on Information Disclosure we set in place, which will take effect upon the [REDACTED], provides that (i) a shareholder holding 5% or more of the shares of our Company shall notify us in the event of any change in its shareholding of our Company, any major change in its control of the Company or any other circumstances as required under the listing rules of our Company's place of listing, and (ii) the Directors, senior management and other staff who have access to material non-public information of the Company shall keep such information confidential and no inside information may be disclosed in the press conferences for the financial results, meetings with analysts, roadshow, meetings with potential investors or other meetings or communications in respect of the operations, financial conditions or other matters of the Company. Furthermore, the Directors and senior management of the Company have attended and will continue to attend trainings on securities laws and continuing compliance obligations under the listing rules of the Shanghai Stock Exchange, the SIX Swiss Exchange and the Hong Kong [REDACTED]. We have also engaged a compliance adviser to advise us on the compliance with the applicable laws, regulations and listing rules.

# Anti-bribery and Anti-corruption

We strictly adhere to our Anti-Bribery and Anti-Corruption Policy, and we maintain a "zero tolerance" stance toward bribery and corruption. Based on regular risk assessments of critical areas

vulnerable to bribery and corruption, we continuously review and enhance our policies and controls. Each year, our Audit Department evaluates and analyzes key issues based on the outcomes of corruption and bribery complaints, with the goal of minimizing such incidents, protecting our company's reputation and credibility, and ensuring full operational compliance. Additionally, we have established robust document and records archiving policies to properly record all transactions and activities. This enables us to efficiently support internal and external audits and investigations whenever necessary.

We have established a public whistleblowing channel (whistleblower@ovt.com) and formulated a comprehensive Whistleblowing Policy to promote effective supervision of our business activities. This policy clearly defines the scope of whistleblowing, available reporting channels, protective measures for whistleblowers, and other detailed provisions.

Upon receiving any whistleblowing reports suspected of violations of business ethics, our internal audit department promptly assigns qualified internal or external investigators to conduct a thorough investigation. If the allegations are substantiated, we take appropriate actions based on the severity of the case, which may include disciplinary measures, dismissal, or termination of cooperation with the involved personnel.

We place great importance on protecting whistleblowers and witnesses, committing to strict confidentiality to safeguard their identities. This ensures that whistleblowers and witnesses are shielded from harassment, accusations, or retaliation, fostering a secure environment for reporting concerns.

To comply with applicable sanctions and export controls regulations, we maintain a trade compliance program which includes policies, standard operating procedures, automated control systems, compliance governance organization and an inquiry and reporting mechanism. We have been continually investing resources to enhance the program over the past years. As part of this compliance program, we generally screen our customers and suppliers against consolidated sanctions lists. We have also incorporated sanctions compliance controls into our IT systems, which, for example, do not allow orders from or destinated to certain sanctioned countries.

# **Tariff and Export Control Policy Monitoring**

Our business and financial performance may be influenced by geopolitical risks. Geopolitical tensions have resulted in and may continue to cause changes in international trade policies and additional barriers to trade such as increased tariffs and export restrictions. During the Track Record Period, our products exported to the United States accounted for an insignificant portion of revenue in each of 2022, 2023 and 2024. We expect that the impact of the U.S. tariff policy on our business is limited. During the Track Record Period, we consistently complied with the applicable licensing, documentation and other requirements in accordance with U.S. export control rules and did not encounter any material issue related to U.S. export control. Our trade compliance program helps us adhere to U.S. export control requirements. While the U.S. introduced tight rules targeting China's access to advanced chips, supercomputers, and semiconductor manufacturing equipment — technologies often used in military applications, our products currently do not involve these technologies. We do not design or manufacture AI chips or processors. We actively monitor and manage our supply chain risks, striving to diversify our supply sources. Overall, the U.S. export control measures currently in place do not have a material impact on our business or financial performance. However, future developments in geopolitics could have additional impacts on our business and

financial performance. See "Risk Factors—Risks Relating to Our Business and Industry—Our international strategy and ability to conduct business in international markets may be adversely affected by legal, regulatory, political and economic risks. Changes in international trade policies and investment restrictions, including imposition of additional trade restrictions and sanctions, may adversely impact our reputation, business, investments, financial condition and results of operations."

# LICENSES, APPROVALS AND PERMITS

During the Track Record Period and up to the Latest Practicable Date, we have obtained all material and necessary licenses, approvals, permits, and certificates required for our business operations in the jurisdictions where we operate, and all such licenses, permits, approvals, and certificates remain valid and in effect.

# **AWARDS AND RECOGNITIONS**

During the Track Record Period and up to the Latest Practicable Date, we have received numerous accolades for both our technologies and products. Some of the most notable awards and recognitions are listed below.

Award Year	Award/Recognition	Awarding Institution/Authority
2025	BIG Innovation Awards - OMNIVISION TheiaCel <sup>®</sup> Product Family - Automotive	Business Intelligence Group
2024	2024 Automotive IC Technology Breakthrough of the Year Award	China Semiconductor Investment Alliance
2024	2024 Global Supply Chain Breakthrough of the Year Award	China Semiconductor Investment Alliance
2024	"China Chip" Outstanding Technological Innovation Product Award - System Basis Chip (SBC)/OKX0210	China Center for Information Industry Development
2024	2024 Star Product Award in the Global CMOS Industry	Shenzhen Camera Industry Association
2024	2024 World Electronics Achievement Awards – Sensor of the Year - OCH2B Camera Module	AspenCore, well-known global media platform covering the electronics industry
2024	2024 Top 10 Chinese IC Design Companies	AspenCore
2024	Best Sensor of the Year 2024 (OX08D)	AspenCore
2023	The 2nd Compass Tech Awards for Innovative Auto Semiconductor Company of the Year 2023	The 3rd China (Lin-Gang) International Semiconductor Summit in 2023
2023	The 10th Auto Electronic Innovation Awards	Shanghai Society of Automotive Engineers
2023	2023 Gaogong Golden Globe Award - Leading Provider of Automotive Image Sensors of the Year	Gaogong Intelligent Auto Research Institute
2023	2023 People's Choice Award – Autonomous Vehicle	CAEV Expo
2023	2023 World Electronics Achievement Awards - Best Sensor of the Year (OV50H)	AspenCore

Award Year	Award/Recognition	Awarding Institution/Authority
2023	Sensory Technology: Sensory Technology Solution of the Year (OX08D/ TheiaCel <sup>®</sup> )	Merit Awards, an independent awards program that recognizes global industries and the market they serve
2023	Med-Tech Innovations Awards 2023 Finalist (OCH2B & AntLinx <sup>™</sup> Endoscope Imaging)	Med-Tech Innovations Awards 2023
2023	Automotive-Grade Chip Technology Breakthrough of the Year (OX08D10)	China Semiconductor Investment Alliance, JW Insights
2022	2022 Platinum Award for Digital Video Creation	Association of Marketing and Communication Professionals
2022	2022 Gold Award for Social Media	Association of Marketing and Communication Professionals
2022	2022 China Semiconductor Market Leader Award	World Semiconductor Conference & Nanjing International Semiconductor Expo
2022	2022 Best Imaging Solutions Manufacturer	Global Health and Pharma Magazine
2022	2022 Phoenix Chapter Spectrum Awards	American Marketing Association
2022	2022 Video, Visual & Virtual Awards - Winner of Best Virtual Customer Engagement Event	Lawrence Ragan Communications, Inc.
2022	2022 Video, Visual & Virtual Awards - Honorable Mention for Company Overview Video	Lawrence Ragan Communications, Inc.
2022	2022 Q1 Top 10 global IC design companies	TrendForce
2022	2022 Top 10 Chinese IC Design Companies	AspenCore
2022	Comprehensive strength index of 70 domestic IC design listed companies	AspenCore
2022	Growth potential index of 70 domestic IC design listed companies	AspenCore
2022	2022 World Electronics Achievement Awards Annual Sensor	AspenCore
2022	2022 Truly Innovative Electronics Award	Truly Innovative Electronics, an initiative by tech journalists to select electronics that they believe are critical for solving challenges faced by technology innovators
2022	2022 Innovators Awards: Silver Award	Vision Systems Design, a global media platform specialized in machine vision and image processing, demonstrating our relentless efforts to expand the frontiers of our image sensors through innovation
2022	2022 Leadership in Engineering Achievement Program Award: Embedded Computing - Bronze	LEAP Awards, which stands for The Leadership in Engineering Achievement Program Awards from Design World magazine, recognizes the most innovative products and components in the design engineering space
2022	2022 Best Imaging Solutions	AI Breakthrough Awards

Award Year	Award/Recognition	Awarding Institution/Authority
2022	2022 Most Innovative In-Cabin Perception Application - Silver Award	AutoSens Awards, which recognize world leading ADAS and autonomous vehicle perception technology
2022	Hardware Development of the Year - Silver	AutoSens Awards