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## BUSINESS

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### OVERVIEW

The Group was founded in 1997 and has become a manufacturer of video graphics cards for PCs. Video graphics cards were the Group's core product and revenue driver for the three years ended 31 December 2010 and in the six months ended 30 June 2011. The Group is principally engaged in the design, development and manufacture of video graphics cards. The Group also provides EMS and manufactures other PC related products.

According to Synovate, an independent market research and consulting company, the global video graphics card market, being the core revenue driver of the Group during the Track Record Period, recorded a total shipment output value at approximately US\$6.55 billion in 2010. The Group is one of the video graphics cards manufacturers with a global market share of approximately 8.5% in terms of revenue and approximately 17.0% in terms of output quantity in 2010. The Group is selected by AMD and Sapphire as one of the manufacturers of their video graphics cards. During the Track Record Period, AMD and Sapphire were among the top 5 customers of the Group.

The Group manufactures video graphics cards for AMD on OEM basis, for Sapphire on both OEM and ODM bases, and for other computer products manufacturers (including Hon Hai Precision) on ODM basis. The Group is also reliant on the performance of its SMT manufacturing subcontractors on quality, lead time and delivery of the work-in-progress after the SMT processes because the Group has no direct control of the SMT manufacturing processes of these subcontractors. In addition, the Group also manufactures and/or sells video graphics cards under its own ZOTAC, Inno3D and Manli brands.

The Group's EMS division manufactures other electronic components and products such as the computer base units of POS and ATM systems, flash memory modules and Internet Media Tablets for its customers.

The Group manufactures and sells other PC related products such as mini-PCs and motherboards under its own ZOTAC and/or Manli brands as well as deriving revenue from the trading of other PC related products and components.

The Group introduced its own ZOTAC branded line of products in EMEAI, APAC, China and NALA in 2007. For the three years ended 31 December 2010 and in the six months ended 30 June 2011, the revenues from ZOTAC products were approximately HK\$725 million, HK\$1,068 million, HK\$1,470 million and HK\$854 million, respectively.

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The Group operates two factories with 42 SMT lines, one COB line and 24 assembly and testing lines occupying a total gross floor area of approximately 150,000 sq.m., with extensive testing and quality assurance facilities and employing 5,339 staff in Dongguan, the PRC. The Group prides on its engineering expertise and accumulated know-how over the years in video graphics cards innovation. As at 31 October 2011, the Group's research and development team consisted of 125 engineers located in Hong Kong, Shenzhen, Dongguan and Taiwan.

The Directors believe that manufacturing quality products for its customers is one of the key success factors of the Group. The Group has established quality control and environmental protection systems and is accredited with ISO 9001, ISO 14001, OHSMS 18000 and QC 080000 certifications.

The Group is committed to be a player in offering innovative and reliable technology products, focusing on video graphics cards and the provision of EMS. For the three years ended 31 December 2010 and in the six months ended 30 June 2011, the Group's revenue was approximately HK\$4,389 million, HK\$4,709 million, HK\$5,585 million and HK\$2,906 million, respectively. The net profit for the same periods was approximately HK\$54 million, HK\$100 million, HK\$117 million and HK\$36 million, respectively.

The following table sets forth the revenue in each of the Group's product segment as a percentage of the total revenue for the period indicated.

	2008		Year ended 31 December				For the six months ended 30 June			
	HK\$'000	% of total	2009	2010	2010	2010 (unaudited)	2011	2010 (unaudited)	2011	
	HK\$'000	% of total	HK\$'000	% of total	HK\$'000	% of total	HK\$'000	% of total	HK\$'000	% of total
Video graphics cards	3,598,181	82%	3,920,091	83%	4,339,639	78%	2,039,958	82%	1,920,332	66%
EMS	622,012	14%	430,623	9%	753,944	13%	238,927	10%	677,627	23%
Other PC related products and components	169,123	4%	358,488	8%	491,799	9%	204,804	8%	307,825	11%
<b>Total revenue</b>	<b>4,389,316</b>	<b>100%</b>	<b>4,709,202</b>	<b>100%</b>	<b>5,585,382</b>	<b>100%</b>	<b>2,483,689</b>	<b>100%</b>	<b>2,905,784</b>	<b>100%</b>

Based on the unaudited accounts for the three months ended 30 September 2011, and the audited accounts for the six months ended 30 June 2011 the total sales revenue recorded by the Group increased by approximately 14% when compared with the Group's audited total sales revenue for the nine months ended 30 September 2010. There is no adverse change in the sales revenue trend in the three months ended 30 September 2011.

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### COMPETITIVE STRENGTHS

#### **Strong development and design capabilities**

The Directors believe that the success of the Group's business is attributable to the high quality products manufactured by the Group, which are testimonial to the product design, product development and engineering skills possessed by the Group's research and development team. The Group's research and development efforts focus on optimising circuitry layout and choice of components to reduce the time-to-market and costs, while maximising manufacturing efficiency and the performance of the Group's products. As at 31 October 2011, the Group operated a research and development team that consisted of 125 engineers and 56 of them were university graduates. The Group's engineers are stationed in Hong Kong, Shenzhen, Dongguan and Taiwan.

#### **Capable management team**

The Group's management team, which has successfully developed the business since 1997, has significant industry experience and strong client relationships. Certain members of the Group's senior management have had over two decades of experience within their corresponding fields in the electronics manufacturing industry. The accumulated knowledge of the management and the know-how of the engineers enable the Group to efficiently deliver reliable products and at the same time meeting the time-to-market requirements.

#### **Development and delivery of quality products**

The Directors believe that the Group's product quality is the key to the sustained success of the Group. The management has established a quality control system based on ISO 9001, ISO 14001, OHSMS 18000 and QC 080000, which are the widely recognized standards for quality management, environmental protection management, occupational health and safety management and hazardous substance process management, respectively. The Group received ISO 9001:2000, ISO 14001:2004, OHSAS 18001:2007, QC 080000:2005 and ISO 9001:2008 certifications in August 2007, April 2008, June 2008, September 2008 and July 2010, respectively, for the Group's production facility in Dongguan, the PRC. The Group has also received awards from customers for, inter alia, successfully establishing an environmental management system, meeting the requirements of the customer's award programme.

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The Group has established procedures in determining the necessary stages for its product design and development process, followed by reviews, verifications and validations that are appropriate to each design and development stage. The Group conducts various tests, such as real time design rules checking, signal integrity measurement, S&H compatibility test, system integration test, dynamic and static burn-in test, environmental stress test, accelerated life test and packaging test, on the products designed by the Group. By conducting these tests, the Group aims to deliver products with the highest quality and reliability to its customers.

The Group has implemented a set of hazardous substance control standards in compliance with WEEE and RoHS for the manufacturing process. For instance, externally, in the procurement of raw materials, the Group has set up and implemented a green supplier quality management system requiring that the raw material suppliers comply with the Group's requirements for green products. Internally, the Group has established the hazardous substance process management system and received the QC 080000:2005 certification in 2008 conforming to certain customers' requirements to ensure products do not contain prohibited substances.

### **Flexible manufacturing facilities**

As at the Latest Practicable Date, the Group had 42 SMT production lines installed with advanced machinery and equipment, such as fully automatic solder paste printing machines, high-speed surface mounting machines and hot air reflow ovens. The Group has also installed advanced testing machines, such as the automatic optical inspection machines and X-ray machines. To compliment the manufacturing hardware, the Group has accumulated over a decade of testing and assembly know-how. By virtue of the manufacturing facilities being an in-house resource, the Group has full control not only over production planning, which ensures scheduling to meet the time-to-market requirements, but also over production processes, which enables the optimisation of product quality, efficiency and costs. The Group also has the capacity to outsource production to other factories during peak months while retaining testing and quality assurance in-house.

### **Relationships with the two dominating suppliers of discrete GPUs in the world**

AMD and NVIDIA are the two key technology providers of discrete GPUs to the manufacturers of add-in video graphics cards worldwide according to the Synovate Report. In the first six months of 2011 their shares of the discrete GPU market are 40.5% and 59.1%, respectively according to Synovate. Both of them are the Group's strategic technology suppliers.

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### *Advanced Micro Devices, Inc. (AMD)*

The Group has been one of ATI's, and successively AMD's, Manufactured-by-AMD ("MBA") video graphics card contract manufacturer since 1998. By virtue of the aforesaid, the Group has benefited from working with the latest AMD GPUs, thus positioning the Group advantageously in manufacturing new variant of video graphics products utilising the latest GPUs for its customers.

### *NVIDIA Corporation (NVIDIA)*

The Group through its wholly owned subsidiaries has achieved and maintained the NVIDIA Authorised Add-in Card Partner status since 2006, through which the Group is eligible for the rebate programmes and special discounts that NVIDIA offers from time to time. Qualification as NVIDIA Add-in Card Partner is at the discretion of NVIDIA management. There is no contractual fulfilling condition for the Group to maintain the NVIDIA Add-in Card Partner status. The said status can also be achieved by other manufacturers.

The Group took further step to cooperate with NVIDIA, one of the world's largest discrete GPU suppliers, by commencing its NVIDIA based video graphics cards OEM/ODM manufacturing and, subsequently, the Group's ZOTAC brand business in 2007.

In 2008, by acquiring ASK Group and Manli Group, the Group further strengthened its market position in brand channel business. NVIDIA is the largest supplier of the Group, and purchases from NVIDIA accounted for approximately 27%, 36%, 33% and 28% of the Group's total purchases for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively.

The Group's own branded products, ZOTAC branded video graphics cards, which target the mid to high end markets, are backed by the Group's strong manufacturing facilities. Furthermore, the Group's wholly owned subsidiary, Zotac Macao, was established in 2006 for channel distribution in the EMEAI region, which started in 2007.

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### **BUSINESS STRATEGIES**

The Group's mission is to offer innovative and reliable technology products, focusing on video graphics cards and the provision of EMS. This is demonstrated by its reputation in the video graphics cards market.

#### **Expand manufacturing capacities**

The Group prides on the quality and reliability of its products. The Group is equipped with in-house with an advanced and flexible manufacturing system together with extensive quality assurance and testing facilities, SMT manufacturing and COB manufacturing facilities in Dongguan, the PRC. The Group intends to enhance its manufacturing capabilities by expanding the Group's production capacity and efficiency through acquiring machineries, equipment and relevant technology, and leasing production premises.

#### **Strengthen engineering, development and design capabilities**

Equipped with experience in electronics engineering and manufacturing, the Group is able to add value to its customers' businesses by providing not only development support utilising the Group's engineering expertise, but also flexibility on the manufacturing requirements. The Group intends to further strengthen its development, engineering and research and development teams and acquire equipment and technology in the relevant fields to develop products that can leverage on the Group's strength in exploiting GPU technology.

#### **Develop the Group's branded products**

The Group believes that its Zotac, Inno3D and Manli brands are important to the future development and expansion of its business. The Group's strategy is to leverage on its accumulated know-how and reputation in manufacturing of discrete video graphics cards and other PC related products to continue to build and promote its brands and develop new products and reach out to more countries.

### **PRODUCTS**

The Group is an electronics manufacturer engaged in the design, development and manufacturing of video graphics cards for PCs. The Group also manufactures products such as the computer base unit of POS and ATM systems, flash memory modules, Internet Media Tablet and other electronics products, and other PC-related products. The Group's products are categorised into three principal segments: video graphics cards, EMS and other PC-related products and components.

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Product segment	Revenue/HK\$million		Revenue/HK\$million		
	Year ended 31 December		For the six months ended		
	2008	2009	2010	2010	2011
<b>Video graphics cards</b>					
— OEM/ODM contract manufacturing	2,507	2,454	2,653	1,306	1,044
— Group's own branded products	1,091	1,466	1,686	734	876
	3,598	3,920	4,339	2,040	1,920
<b>EMS</b>	622	431	754	239	678
<b>Other PC-related products and components</b>	169	358	492	205	308
	4,389	4,709	5,585	2,484	2,906

### 1. Video graphics cards segment

The video graphics cards manufactured by the Group are PC components that process graphics display data and interface between a PC and its video display. The Group's engineering skills, design experience and know-how enable the Group to become one of the world's leading manufacturers of video graphics cards for PCs. The Group utilises its SMT production lines to assemble the components of the video graphics cards such as ASIC (including GPUs), RAM, PCBs, heatsinks (including fansinks) and other electronic and mechanical components, followed by other testing and inspection processes. The Group also has the capability to produce video graphics cards, which support over-clocking features. Sales of video graphics cards accounted for approximately 82%, 83%, 78% and 66% of the turnover of the Group for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. The Group does not envisage there to be any new product or technology that will completely replace discrete video graphics cards in the near future. As set out in the section headed "Industry overview — Industry characteristics — Global add-in video graphics cards market" in this prospectus, it is expected that the market value of add-in video graphics cards worldwide in the performance and enthusiast market segments will increase from 2010 to 2014. In the video graphics cards manufacturing business, GPU manufacturers such as AMD and NVIDIA will release the design of new reference video graphics cards to accompany the launch of new GPUs. Such new designs serve to demonstrate specific features of the new GPUs and how to implement the new GPUs into new video graphics cards.

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The Group is one of the manufacturers for AMD for such reference video graphics cards, i.e. the MBA video graphics cards. The Group also manufactures video graphics cards for Sapphire based on AMD GPUs.

The Group's ZOTAC video graphics cards use GPUs supplied by NVIDIA. For the purpose of developing a ZOTAC video graphics card, the Group will obtain a kit from NVIDIA typically containing (1) datasheet of the GPU, (2) thermal design guide, (3) video graphics card design guide, (4) application notes or engineer change notes (where applicable), (5) bill of materials, (6) PCB layout design, (7) schematic, (8) design source file (job file), (9) mechanical parts drawing (e.g. brackets and fansinks) and (10) video graphics card specifications or qualification report in respect of the relevant GPU.

The research and development team of the Group will analyse the materials in the kit to determine the functional capabilities of such GPU and scopes for optimization. The product marketing and the research and development teams will determine the product specifications according to market driven costs of materials and functions required for different models of video graphics cards.

Based on such findings, the research and development team will develop the ZOTAC video graphics cards by adding value to the reference design through modifying or re-designing such reference cards with, inter alia, re-engineered circuitries, printed circuit boards layouts, choice of components and thermal dissipation performance.

The research and development team may stretch the capabilities (for instance, over clocking) of certain new high-specification GPUs to produce top-of-the-line ZOTAC models of video graphics cards.

AMD GPUs and NVIDIA GPUs are based on different technologies. Circuitry designed for an AMD GPU based video graphics card will not accept an NVIDIA GPU in lieu or vice versa. On the other hand, video graphics cards as finished goods are usually used in desktop PCs with compatible interface bus slots and the appropriate software. The product life cycle of video graphics cards based on AMD or NVIDIA GPUs are usually around six to twelve months and depend on whether the GPU manufacturers introduce new GPUs to the market. New video graphics cards installed with new GPUs may impact on the demand on existing video graphics card models, which do not have the newest GPUs.



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AMD branded MBA video graphics cards are geared for the specialist reference video graphics card market. Sapphire sells its Sapphire brand video graphics cards assembled by the Group are geared as retail products. Other ODM/OEM contract manufacturing customers are PC manufacturers, which use the video graphics cards assembled by the Group as components to assemble PCs. The Group's own brands video graphics cards are destined for the retail market. There is little threat of substitution. Therefore, the production of branded video graphics cards and the production of video graphics cards for PC manufacturers does not cannibalise each other's market. According to the Synovate Report, the shipment quantity of add-in video graphics cards was approximately 73 million units in 2010. Video graphics cards assembled for the Group's own brands and Sapphire represented approximately 8.5% of the market size in the year 2010. The market size is considered large enough for the Group's own brand and Sapphire to co-exist. Sapphire video graphics cards are solely based on AMD technology, whilst the Group's own brands video graphics cards are solely based on NVIDIA technology.

**(a) ODM/OEM contract manufacturing of video graphics cards**

*(i) AMD*

AMD, a global semiconductor company that designs and sells microprocessors, chipsets and GPUs, was one of the Group's top three customers for the three years ended 31 December 2010. The Group is selected by AMD as one of the manufacturers to manufacture Manufactured-by-AMD ("MBA") video graphics cards utilising GPUs that are newly introduced to the market. The Group has been manufacturing ATI's (subsequently acquired by AMD in 2006) video graphics cards since 1998.

The Group manufactures AMD's MBA video graphics cards on OEM basis according to the product designs and specifications provided by AMD. MBA video graphics cards are released by AMD to accompany the launch of new GPUs. AMD outsourced the manufacturing of such video graphics cards to the Group. MBA video graphics cards provide the reference design, which serve to demonstrate specific features of the new GPUs and a proven implementation of the new GPUs into new video graphics cards in terms circuitry, choice of electrical and mechanical components and operating environmental conditions. MBA video graphics cards are targeted at manufacturers as well as enthusiasts who are early-adopters of new technology. Video graphics

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cards manufacturers purchase such MBA video graphics cards to use as a reference guide for developing the manufactures' own variants of video graphics cards utilising the new AMD GPUs, which such MBA video graphics cards are designed to demonstrate. By varying the choice and quantity of components, such as RAM or PCB, manufacturers may create variants with different features and specifications to target at different pricing levels.

In addition, the Group also carries out OEM manufacturing of certain, ongoing production models of video graphics cards for AMD. By the nature of OEM manufacturing, OEM customers provide product design and specification details to the Group and the Group provides manufacturing services according to such details. Generally, confidentiality clauses are included in the terms with OEM customers. In the event of any infringement of the Group's intellectual property rights, the Group will seek legal advice in the relevant jurisdiction and take legal action to protect its rights as appropriate.

AMD provides GPUs to the Group on a consignment basis. AMD retains title over such consigned GPUs. Certain components and materials such as RAM may be provided by AMD on a consignment basis from time to time. The Group always procures fansinks and PCBs on behalf of AMD and such components would be accounted for as purchases of the Group and expensed as cost of sales. The Group would procure any remaining components and materials necessary for the assembly of MBA video graphics cards. Most of the components and materials are sourced from AMD approved vendors, as required. It is not operationally practical and not an industry practice for ODM/OEM contract manufacturing customers to provide the Group with all the components and materials required in the assembly process of video graphics cards.

Apart from being AMD's supplier, the Group also purchases GPUs from AMD for the purpose of manufacturing video graphics cards for customers.

(ii) *Computer products manufacturers*

Due to the Group's strong design and engineering capabilities, the Group supplies video graphics cards, on an ODM basis, to some manufacturers of computer products such as Hon Hai Precision. These

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computer products manufacturers require high quality video graphics cards manufactured according to their requirements for inclusion into their products.

The sales of video graphics cards for computer products manufacturers on ODM and OEM bases amounted to approximately HK\$1,461 million, HK\$1,523 million, HK\$1,695 million and HK\$689 million during the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively.

Other ODM/OEM contract manufacturing customers, such as Hon Hai Precision, which engage the Group to assemble video graphics cards, usually require the Group to procure all of the components and materials necessary for the assembly of video graphics cards and such components would be accounted for as purchases of the Group and expensed as cost of sales.

For the three years ended 31 December 2010 and in the six months ended 30 June 2011, the Group procured all the components and materials (such practice is known as “turnkey”) out of approximately 42%, 38%, 36%, and 34% of the video graphics cards assembled by the Group, respectively.

(iii) *Sapphire*

Sapphire, a provider of video graphics cards for PCs, was one of the Group’s top two customers for each of the three years ended 31 December 2010 and in the six months ended 30 June 2011. As at the Latest Practicable Date, all Sapphire branded video graphics cards manufactured by the Group used AMD discrete GPUs. For the three years ended 31 December 2010 and in the six months ended 30 June 2011, sales to Sapphire amounted to approximately HK\$550 million, HK\$499 million, HK\$495 million and HK\$232 million, respectively.

Sapphire was incorporated in 2001. It was formed for the purpose of, and has since been principally engaged in, the sale of ATI or AMD (after its acquisition of ATI) technology-based video graphics cards. Sapphire has been an ATI or AMD “add-in-board partner” since 2001 and the Group first supplied Sapphire with such video graphics cards since 2001.

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Sapphire always would provide GPUs to the Group on a consignment basis. Sapphire retained title over such consigned GPUs. Sapphire may choose to consign certain other components and materials to the Group and require the Group to procure any remaining components and materials necessary for the assembly of video graphics cards and such components would be accounted for as purchases of the Group and expensed as cost of sales. The exact requirements varied from time to time. During the Track Record Period, transactions between Sapphire and the Group were at arm's length and under normal commercial terms.

The Group owned 40% interest in Sapphire when it was incorporated in 2001. The remaining 60% interest in Sapphire was owned by other shareholders who are all Independent Third Parties. Other than sales by the Group to Sapphire, there is no past or present relationship, business or otherwise, between Sapphire and the Directors, substantial Shareholders, senior management of the Group and their respective associates. Please refer to the section headed "History and development — The Group's investment in Sapphire" for more information.

During the Track Record Period, Sapphire allotted new shares to its shareholders on two occasions. In line with (i) the Group's businesses of EMS and OEM/ODM manufacturing and (ii) the Group's strategy to further expand its business channels and focus its resources on the sale and distribution of its own branded products, the Group did not pursue to maintain its level of interest in Sapphire on both occasions. Accordingly, on 1 January 2008, the Group's interest in Sapphire was diluted to 18.18%. On 19 August 2010, the Group's interest in Sapphire was further diluted to 4.95%.

The Group has grown substantially in its experience and customer base in contract manufacturing for video graphics cards since 2001 when Sapphire was incorporated. Being a MBA board manufacturer for ATI or AMD (as the case may be) since 1998, the Group has been building its reputation as a renowned video graphics card manufacturer. For the three years ended 31 December 2010 and in the six months ended 30 June 2011, sales to Sapphire amounted to approximately HK\$550 million, HK\$499 million, HK\$495 million and HK\$232 million, respectively, representing 13%, 11%, 9% and 8% of the Group's total revenue, respectively. As indicated from the above figures, the Directors believe that the dilution of the Group's interest in Sapphire did not affect its manufacturing relationship with Sapphire. The Group first manufactured video graphics cards for Sapphire in 2001.

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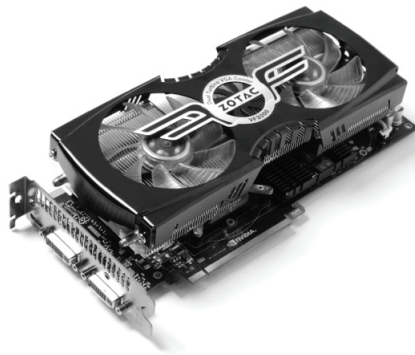
However, as set out in the Prospectus in the section headed “Risk factors — Risks relating to the Group — The Group does not have long term purchase commitments from its customers, which may result in fluctuation in the Group’s results of operations and may affect its liquidity”, the Group does not have any long-term purchase commitments from its customers, including Sapphire, which may result in fluctuation in the Group’s results of operations and may affect its liquidity.

As at the Latest Practicable Date, the Group held a 4.95% strategic equity interest in Sapphire.

**(b) *The Group’s Brands***

The Group only started to produce its own brands video graphics cards in 2007 as a means to reduce its reliance on the ODM/OEM customers. Unlike the video graphics cards manufactured for AMD and the other ODM/OEM customers, the Group’s own brands video graphics cards are destined for the retail market. The Group only used NVIDIA GPUs in its video graphics card products. In general NVIDIA would provide a manufacturers’ suggested selling price (“MSRP”) to the manufacturers of video graphics cards using NVIDIA GPUs.

**(i) *ZOTAC***



The Group designs, develops, manufactures, sells and markets video graphics cards for PCs under the Group’s ZOTAC brand, which targets the mid to high end market. ZOTAC branded video graphics cards have received awards and compliments from various magazines and websites, such as PC Magazine, PCPOP, ZOL and Tom’s Hardware. As at the Latest Practicable Date, all ZOTAC branded video graphics cards used NVIDIA discrete GPUs. For the three years ended 31 December 2010 and in the six months ended 30 June 2011, the sales of ZOTAC video graphics cards were HK\$709 million, HK\$903 million, HK\$1,213 million and HK\$668 million, respectively.

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(ii) *Manli*



The Group designs, develops, manufactures, sells and markets NVIDIA based video graphics cards for PCs under the Manli brand, which target the mass market. For the nine months ended 31 December 2008, the two years ended 2010 and in the six months ended 30 June 2011, sales of video graphics cards under the Manli brand were HK\$93 million, HK\$155 million, HK\$102 million and HK\$67 million, respectively.

(iii) *Inno3D*



The Group designs, develops, sells and markets NVIDIA based video graphics cards for PCs under ASK Group's own brands Inno3D, which target the middle to enthusiast markets. For the nine months ended 31 December 2008, the two years ended 31 December 2010 and in the six months ended 30 June 2011, sales of video graphics cards under ASK's own brands were HK\$289 million, HK\$407 million, HK\$369 million and HK\$141 million, respectively.

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The ODM/OEM contract manufacturing business commanded a higher gross profit margin after material costs than the Group's own brands video graphics cards business during the Track Record Period. Pricing quotations given to the Group's ODM/OEM customers are on cost-plus basis. Among the Group's major customers, the Group assembles MBA video graphics cards for AMD. MBA video graphics cards are produced to accompany the launch of new GPUs to demonstrate its features and capabilities as well as to serve as reference for video graphics cards manufacture to design new video graphics cards based on the new GPUs. The engineering and quality of MBA video graphics cards tend to be over specified above and beyond norm, which lead to the relatively higher cost on components and materials. In the case of the other ODM/OEM customers, they are mainly PC manufacturers who utilise video graphics cards assembled by the Group as a component for the production of PCs. Such customers have specific quality and testing requirements to meet their specifications, and the Group would add certain charges for the service of satisfying specific requirements. The Group would also add an agreed percentage premium into the selling price to cover potential costs of returns.

As for the slow moving and obsolete inventories of components and materials, which are procured specifically for designated ODM/OEM contract manufacturing customers, the Group would seek reimbursement for the costs of such inventories from such customers. It is industry practice that the ODM/OEM contract manufacturing customer would absorb such costs.

In order to gain market share, the Group has tended to use high quality components and materials and at the same time price its own brands video graphics cards at levels below the MSRP. For own brands video graphics cards, potential costs of returns are not added to the pricing. The Group would absorb inventory obsolescence. As a result, the gross profit margin after materials costs during the Track Record Period of OEM/ODM video graphics cards contract manufacturing business was higher than that of the Group's own brands video graphics cards.

### **2. Electronics Manufacturing Services (EMS)**

As an EMS provider, the Group manufactures electronic components and products for its customers according to such customers' product designs and specifications. The components and products that the Group manufactures include the computer base unit of POS and ATM systems, flash memory modules, Internet Media Tablets and other electronic products. Sales of EMS components and products accounted for approximately 14%, 9%, 13% and 23% of the turnover of the Group for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively.

**(i) POS and ATM systems**

The basic hardware of a POS system includes cash drawers, computer base units, hand-held scanners, POS printers, customer displays and colour displays. The basic hardware of an ATM system includes cash-out modules, computer base units, printers, keyboards, card readers and screens. The Group manufactures only the computer base units of POS and ATM systems. A POS and ATM system provider was one of the Group's top 10 customers for the three years ended 31 December 2010 and in the six months ended 30 June 2011.

**(ii) Flash memory module**

A flash memory module is a small, removable secondary mass storage device used in portable electronic devices. A flash memory modules provider was one of the Group's top 10 customers for the three years ended 31 December 2010.

**(iii) Internet Media Tablet**

The Group manufactures Internet Media Tablets for a consumer electronics company.

**(iv) Other electronic products**

The Group also manufactures other electronic products, such as LED panels, GPS products, and other electronic controllers for its customers.

**3. Other PC-related products and components**

Apart from the manufacturing of video graphics cards, the Group also designs, develops and manufactures other PC-related products, such as mini-PCs and PC motherboards, under the ZOTAC or Manli brands, or for other parties. Besides, the Group also trades PC-related components. Sales of other PC-related products and components accounted for approximately 4%, 8%, 9% and 11% of the turnover of the Group for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively.



**(i) Mini-PC**



Since 2009, the Group manufactures mini-PCs, known as ZBOX and MAG (Mini All-in-one Giant), under the ZOTAC brand. The Group also manufactures mini-PCs under the Manli brand. Mini-PC is a small PC designed for multi-media high-definition video playback.

**(ii) PC motherboard**



A motherboard is the main circuit board in a PC that holds many of the crucial components of the computer system, such as the central processing unit (commonly known as the CPU), main memory and Input/Output functions, while providing connectors for other peripherals. The Group manufactures PC motherboards under the ZOTAC and Manli brands, and for other parties.

**(iii) Netbook**

During the Track Record Period, the Group also produced and sold netbooks, being notebook computers that are light-weight and economical, under the ZOTAC and Manli brands. This line of product is being phased out.

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### PRODUCTION FACILITIES AND CAPACITY

#### Production facilities

The Group operates two factories in Dongguan, the PRC, occupying a total gross floor area of approximately 150,000 sq.m. The Group has 42 SMT lines and one COB line in its two factories in Dongguan. The SMT lines consist of modules of machinery and equipment, such as solder paste printing machines, high-speed surface mounting machines and hot air reflow ovens. The Group has also installed advanced testing machines, such as the automatic optical inspection machines and X-ray machines. In 2010, the Group reconfigured the SMT lines and at the same time increased productivity.

Work-in-progress produced by SMT processes, such as video graphics cards, motherboards, ATM systems and POS systems, are required to undergo post-SMT assembly and testing (“A&T”) in order to complete the manufacturing process and result in finished goods. The Group had 29, 24, 24 and 24 A&T lines as at 31 December 2008, 2009, 2010 and 30 June 2011, respectively. The Group started to re-engineer its A&T lines in late 2008 by reconfiguring and remapping of processes as well as investment in equipment resulting in 24 A&T lines in 2010 with significantly improved productivity. For the re-engineered A&T activities, the Group had invested in and increased the use of automatic jigs and fixtures, and at the same time improved employee training and production planning.

SMT processes are utilised by the Group to manufacture almost all of its products. The modules of machineries and equipment of the SMT and A&T lines can be configured to manufacture video graphics cards, EMS products and other PC related products. The Group’s integrity in maintaining confidentiality of customers’ propriety technology is demonstrated by setting up SMT and A&T lines in segregated areas within the Dongguan Baineng factory for certain customers.

As at 31 October 2011, the Group employed 5,339 staff in Dongguan, the PRC.

#### Production capacity and utilisation rates

The Group outsourced certain of its production each year, owing to its capacity constraint. In the six months ended 30 June 2011, the Group has committed SMT capacities from three factories. The Group, apart from all of ASK Group related productions and some of Manli Group related productions, only outsourced the SMT processes in the production of video graphics cards and motherboards during the Track Record Period. The proportion

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of the Group's (including that of Manli Group and ASK Group) video graphics cards and motherboards manufactured in-house and outsourced are illustrated in the table below. Post-SMT A&T are undertaken in-house to ensure that the Group retains the ultimate control over the quality and tolerance of its products. In respect of the assembly of video graphics cards for AMD and Sapphire, the Group carried out the SMT processes in-house.

	2008		Year ended 31 December				Six months ended 30 June			
	(units of video graphics cards and motherboards in thousand)	(%)	2009 (units of video graphics cards and motherboards in thousand)	(%)	2010 (units of video graphics cards and motherboards in thousand)	(%)	2010 (units of video graphics cards and motherboards in thousand)	(%)	2011 (units of video graphics cards and motherboards in thousand)	(%)
Manufactured in-house	6,736	71.5%	8,055	68.6%	8,812	71.2%	4,455	72.9%	4,870	90.4%
Outsourced	2,689	28.5%	3,684	31.4%	3,566	28.8%	1,653	27.1%	515	9.6%
<b>Total</b>	<b>9,425</b>	<b>100.0%</b>	<b>11,739</b>	<b>100.0%</b>	<b>12,378</b>	<b>100.0%</b>	<b>6,108</b>	<b>100.0%</b>	<b>5,385</b>	<b>100.0%</b>

The SMT outsourcing subcontracting fees incurred by the Group, excluding all of ASK Group related productions and some of Manli Group related productions, amounted to HK\$17.8 million, HK\$23.3 million, HK\$26.7 million and HK\$1.1 million, or 47.9%, 36.4%, 45.1% and 9.0% of the total outsourcing subcontracting fees incurred for each of the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. Accordingly, the Group outsourced 1.5 million, 2.1 million, 2.5 million and 0.1 million units of video graphics cards and motherboards for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively, excluding all of ASK Group and some of Manli Group related productions.

Since the formation of ASK Group and Manli Group in April 2008, the Group started to gradually integrate the production of Manli Group, while as at 30 June 2011, the production of ASK Group remained completely outsourced. For the three years ended 31 December 2010 and in the six months ended 30 June 2011, Manli Group outsourced 23%, 17%, 10% and 20% in terms of units of its productions, respectively. The quantities outsourced and subcontracting fees incurred by ASK Group and Manli Group for video graphics cards during the Track Record Period are summarised below. ASK Group and Manli Group only outsourced the production of video graphics cards, which were done on a turn-key basis. During the Track Record Period, in addition to video graphics cards and motherboards, other products of Manli Group included mini-PCs and netbooks. The Group produced these products for Manli Group.

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	Year ended 31 December						For the six months ended 30 June			
	2008		2009		2010		2010		2011	
Quantity (units of video graphics cards and motherboards in thousand)	Fee (HK\$'000)	Quantity (units of video graphics cards and motherboards in thousand)	Fee (HK\$'000)	Quantity (units of video graphics cards and motherboards in thousand)	Fee (HK\$'000)	Quantity (units of video graphics cards and motherboards in thousand)	Fee (HK\$'000)	Quantity (units of video graphics cards and motherboards in thousand)	Fee (HK\$'000)	
ASK Group	1,034	17,243	1,417	38,908	1,047	31,348	485	12,932	380	11,376
Manli Group	110	2,083	122	1,900	49	1,177	38	1,011	5	110
Total	1,144	19,326	1,539	40,808	1,096	32,525	523	13,943	385	11,486

ASK Technology was a fabrication-less manufacturer of video graphics cards. It outsourced all its manufacturing. The Group intends to further strategically integrate all the production capacity requirements in-house over time and reduce the Group's demand on external SMT subcontractors by expanding its SMT production facilities utilising the proceeds from the Offering. The Group plans to invest approximately HK\$40.46 million in 2012, to expand its current SMT production capacity by approximately 17% on a year-on-year basis (i.e. approximately 337,500 more pieces of component per hour) in 2012. The Directors believe that such investment would enable the Group to increase its flexibility to capture the expected sales growth with in-house SMT production capacity, substitute part of the SMT outsourcing requirements, and further integrate the SMT production capacity requirement of the Group's subsidiaries.

The Group maintains certain level of SMT outsourcing as a prudent measure to manage capital investment and asset utilisation. The Group may not be able to engage sufficient outsourced SMT capacity to capture sudden unplanned influx of customer orders, which have short delivery horizons.

SMT processes are involved in the production of almost all of the Group's products such as video graphics cards, motherboards, mini PCs, ATM systems, POS systems, and flash memory modules spanning across the OEM/ODM, EMS and other PC related product segments, of which video graphics cards represented approximately 82%, 83%, 78% and 66% of the Group's revenue for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. The utilisation of the Group's in-house SMT production capacity is tabulated below.

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	Year ended 31 December			For the six months ended	
				30 June	
	2008	2009	2010	2010	2011
No. of SMT lines <i>(Note 1)</i>	38	41	40	40	40
No. of SMT machine hours available for the year					
(Hours) <i>(Note 2)</i>	268,464	322,163	339,011	166,380	166,380
No. of productive SMT machine hours for the year					
(Hours) <i>(Note 3)</i>	<u>252,856</u>	<u>302,118</u>	<u>321,746</u>	<u>158,228</u>	<u>158,394</u>
Utilisation Rate (%)	<u>94.2%</u>	<u>93.8%</u>	<u>94.9%</u>	<u>95.1%</u>	<u>95.2%</u>

*Note 1:* Number of SMT lines configured in the respective years.

*Note 2:* 23.5 hours per day by number of lines by number of work days in the year. The SMT lines could operate up to 2 shifts of 11.75 hours per shift per day, which complies with labour regulations.

*Note 3:* actual machine hours utilised in production, including setup time, excluding unforeseen maintenance down time.

In the six months ended 30 June 2011, the Group procured two new SMT production lines at a cost of approximately HK\$33.7 million. These new SMT production lines went live in September 2011 and are expected to increase SMT production capacity by approximately 16% on a year on year basis (i.e. approximately 268,000 more pieces of components per hour).

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A&T processes are required for video graphics cards, motherboards, ATM and POS products. Such work-in-progress from the SMT lines are fed into the A&T lines. The utilisation of the Group's in-house A&T production capacity is tabulated below.

	Year ended 31 December			For the six months ended	
	2008	2009	2010	30 June 2010	2011
No. of A&T lines <i>(Note 1)</i>	29	24	24	24	24
Theoretical Capacity of the A&T lines (Units) <i>(Note 2)</i>	12,000,000	16,800,000	19,200,000	9,600,000	9,600,000
Actual A&T line output (Units) <i>(Note 3)</i>	<u>8,887,994</u>	<u>10,972,536</u>	<u>12,204,351</u>	<u>5,817,506</u>	<u>5,362,307</u>
Utilisation Rate (%)	<u>74.1%</u>	<u>65.3%</u>	<u>63.6%</u>	<u>60.6%</u>	<u>55.9%</u>

*Note 1:* Number of A&T lines configured in the respective years/periods.

*Note 2:* Theoretical processing capacity for the A&T lines configured in the respective years/periods. The A&T lines could operate 2 shifts of 10.5 hours per shift per day, which complied with labour regulations.

*Note 3:* Actual number of units processed in the respective years/periods.

COB processes are utilised in the manufacturing of flash memory module products for one customer. The utilisation of the Group's in-house COB production capacity is tabulated below. Due to the fact that the only flash memory product customer of the Group was gradually placing fewer orders on flash memory products involving the COB processes and more orders on flash memory products involving SMT processes, the output and utilisation rate of the COB line dropped over the three years ended 31 December 2010 and six months ended 30 June 2011. The utilisation of the COB line is reactive to the demand of the said customer. Despite the fall in demand on the COB line, the Group intends to maintain the availability of the COB line.

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	Year ended 31 December			For the six months ended	
				30 June	
	2008	2009	2010	2010	2011
No. of COB line <i>(Note 1)</i>	1	1	1	1	1
Theoretical Capacity of the COB line (Units) <i>(Note 2)</i>	3,744,000	3,744,000	3,744,000	1,872,000	1,872,000
Actual COB line output (Units) <i>(Note 3)</i>	<u>1,016,635</u>	<u>494,397</u>	<u>46,119</u>	<u>43,973</u>	<u>3,455</u>
Utilisation Rate (%)	<u>27.2%</u>	<u>13.2%</u>	<u>1.2%</u>	<u>2.3%</u>	<u>0.2%</u>

*Note 1:* Number of COB line configured in the respective years/periods.

*Note 2:* Theoretical processing capacity of the COB line configured in the respective years/periods. The COB line could operate 2 shifts of 10.25 hours per shift per day, which complied with labour regulations.

*Note 3:* Actual number of units processed in the respective years/periods.

### PRODUCTION PROCESS

The Group bases its manufacturing operations in Dongguan, the PRC, and runs a quality system that complies with the ISO 9001 standard. Under this system, the manufacturing process is controlled by official work instructions that describe working steps and requirements specific to individual work stations. Quality data are recorded and analysed for process improvements as well as product traceability.

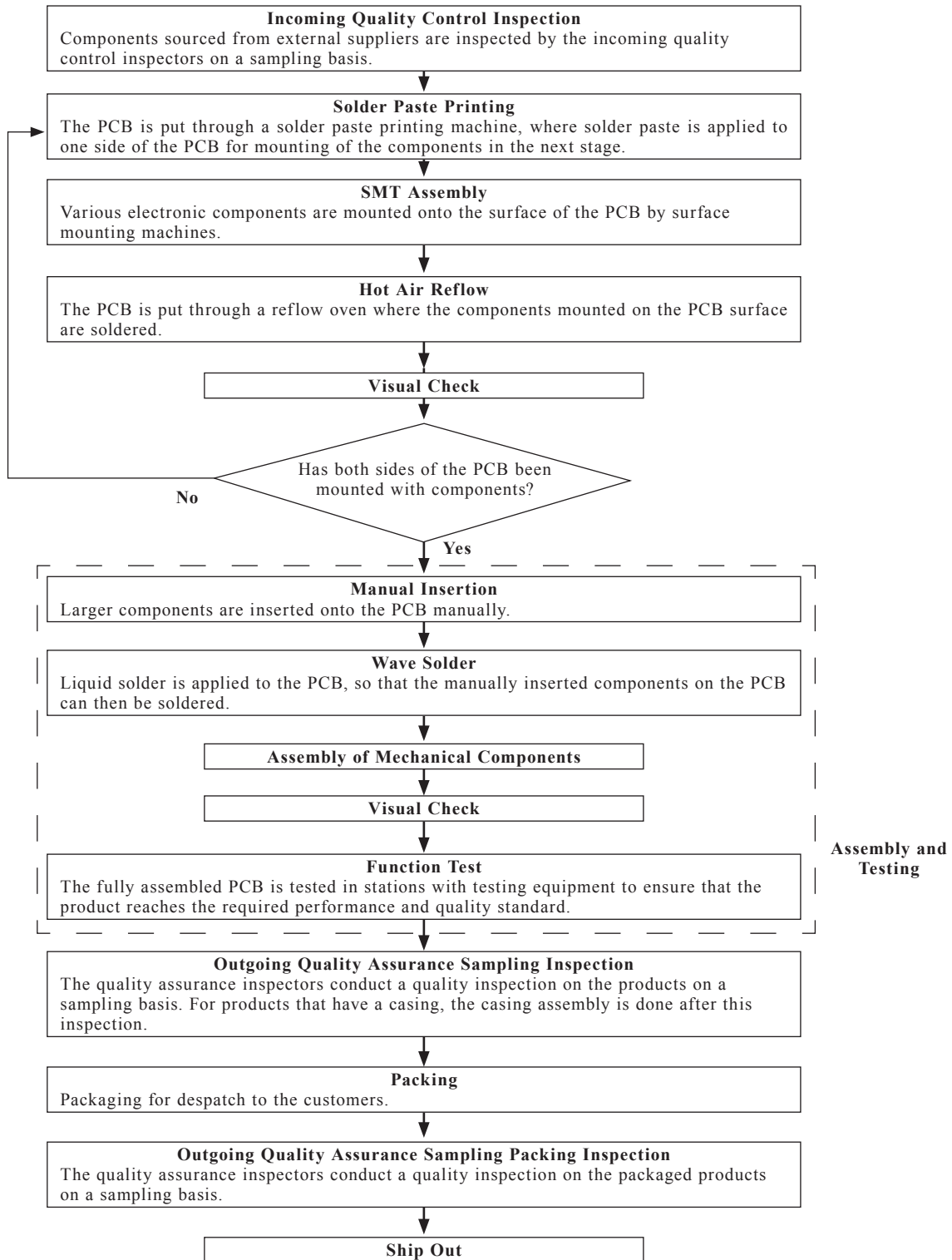
Generally, the manufacturing of the Group's products starts with SMT assembly, followed by optional manual insertion, testing, inspection and packing. In the cases of products such as video graphics cards, motherboards, ATM systems and POS systems, the work-in-progress output from SMT processes are followed up by A&T processes, which involves manual insertion, testing, inspection and packing. Please refer to flow diagram below.

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### General production flow diagram (such as for video graphics cards)





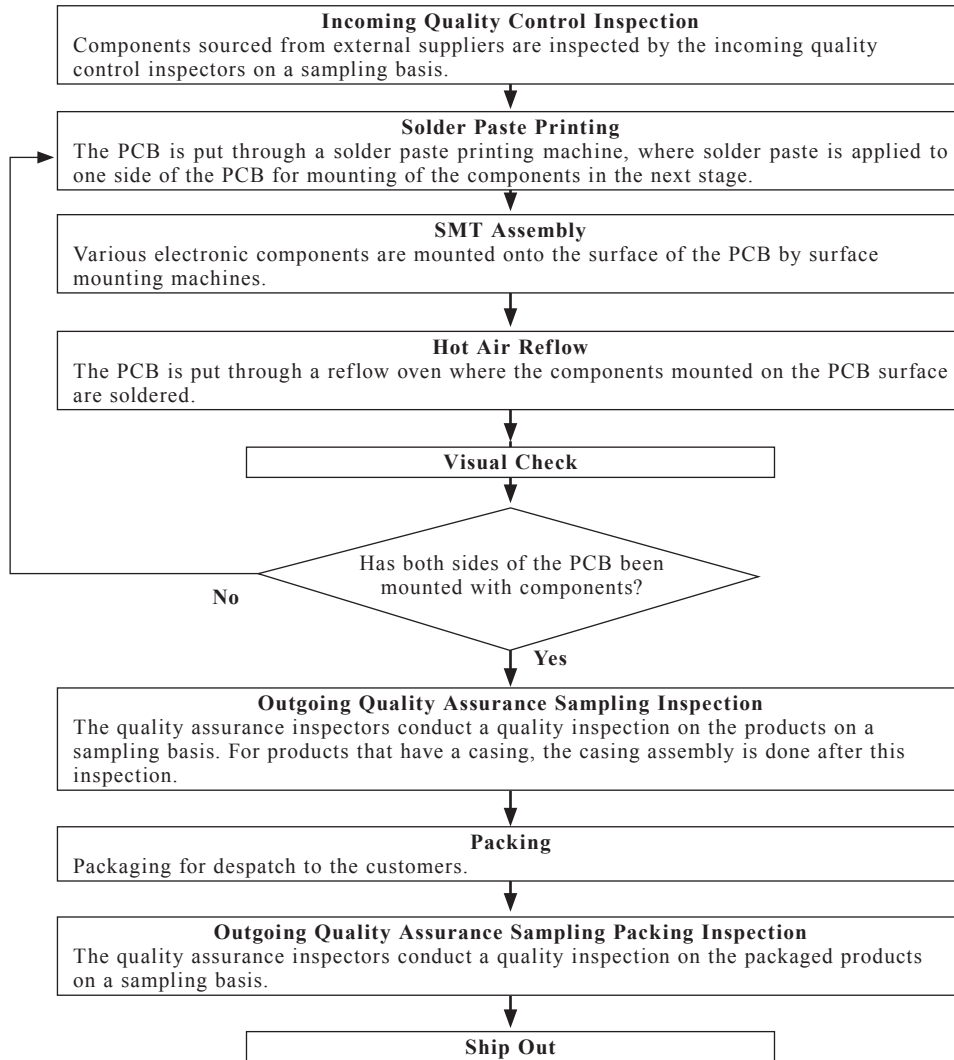
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In the case of certain other PC related products and EMS products such as LED video panels, the work-in-progress output from SMT processes are followed by inspection and packing. Please refer to flow diagram below.

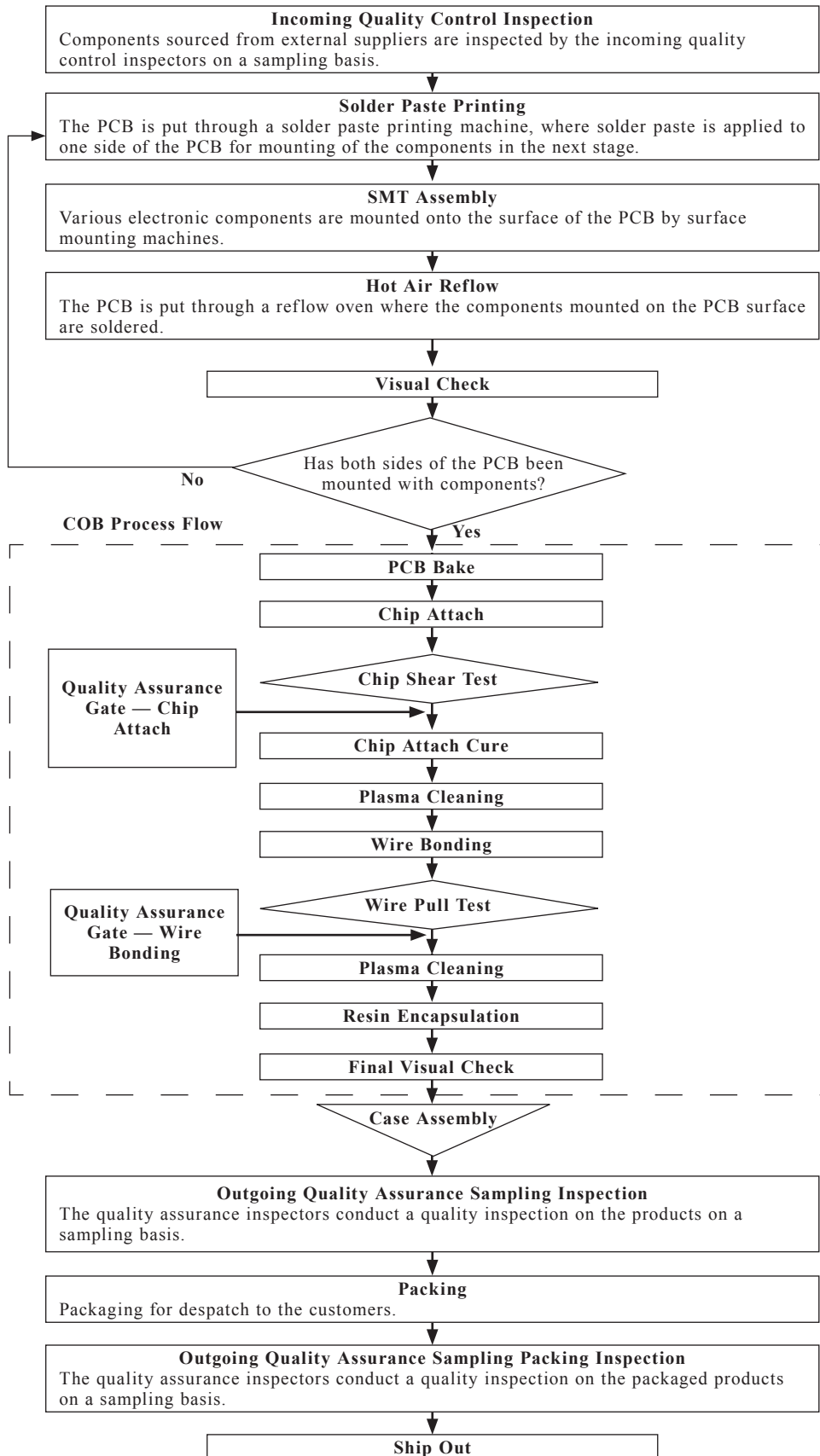
### EMS and PC related products production flow diagram



In the case of production of flash memory modules, which utilises COB processes, work-in-progress output from SMT processes are followed up by COB processes, inspection and packing. Details of the steps involved in the COB processes are illustrated in the following flow diagram.

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## COB production process flow diagram



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### QUALITY CONTROL

The Directors believe that the Group's product quality is the key to the sustained success of the Group. The management has established a quality control system based on ISO 9001, ISO 14001, OHSMS 18000 and QC 080000, which are the widely recognized standards for quality management, environmental protection management, occupational health and safety management and hazardous substance process management, respectively. The Group received ISO 9001:2000, ISO 14001:2004, OHSAS 18001:2007, QC 080000:2005 and ISO 9001:2008 certifications in August 2007, April 2008, June 2008, September 2008 and July 2010, respectively, for the Group's production facility in Dongguan, the PRC. The Group has also received awards from customers for, inter alia, successfully establishing an environmental management system, meeting the requirements of the customer's award programme.

The Group's quality control system is a comprehensive system that includes different quality control procedures related to various aspects, such as supplier management, equipment management, inspection on incoming material, production and final inspection before delivery. These procedures are audited annually and updated regularly as necessary to address operational needs according to the standards adopted by the Group.

#### **Supplier management**

The Group has detailed procedures in selecting its suppliers. In order to become a qualified supplier of the Group, its potential suppliers have to pass the Group's assessments on various aspects including quality management, procurement, equipment calibration, environmental protection systems etc.. The Group assesses its qualified suppliers periodically and disqualifies suppliers who fail its evaluation. During the Track Record Period, the Group did not disqualify any supplier for the two years ended 31 December 2009 and disqualified four suppliers in the year ended 31 December 2010 due to quality issues.

#### **Equipment management**

The Group has detailed procedures on the approval, adjustment and maintenance of its production and testing equipment. The Group conducts an assessment of the performance parameters on its equipment to confirm that the equipment can meet the Group's requirements. To ensure optimal performance of the Group's equipment, regular maintenance and calibration are carried out by designated personnel according to the maintenance instructions.

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### **Inspection of incoming materials**

Raw materials and components delivered to the Group are inspected and tested by the incoming quality control inspectors using AQL standards. The inspectors perform sample inspections and testing on each batch of incoming materials according to the suitable incoming quality control inspection and testing guidelines. Incoming materials are also inspected and tested according to any special requirements from the Group's customers. Any rejected incoming materials are passed to the Group's Material Review Board for further investigation.

### **Production**

The Group plans and carries out production under controlled conditions. Controlled conditions include:

- controlled ambient environment
- availability of work instructions
- availability of testing and inspection instructions/equipment
- availability of fixtures and tools
- availability of order information, such as order release (OR), bill of materials (BOM) etc.

A process management plan is prepared for each product. The process management plan lists out the key technical parameters and their specification limits for each stage of the production process as well as the adjustments needed to be made when certain key parameters exceed their specification limits during the production process.

During various stages of the production process, the quality control team conducts visual checks and functional testing to ensure that the semi-finished and finished products comply with the requisite quality and performance standards. Semi-finished and finished products which do not meet the relevant quality standards will be re-worked and are subject to the same inspections and testing again before being accepted as shippable products.

### **Final inspection before delivery**

The finished products are inspected and tested by the quality assurance inspectors using the AQL standards. The quality assurance inspectors perform sample inspections and tests on each batch of the finished products according to the appropriate inspection and testing instructions and checklists. Finished products are also inspected and tested according to any special requirements from the Group's customers. Finished products which do not meet the relevant quality standards will be re-worked and are subject to the same inspections and testing again before being accepted as shippable products.

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### RESEARCH AND DEVELOPMENT

The Directors believe that the Group's research and development capability has been, and will remain to be, a key constituent to the continual success to the Group's operation. As at 31 October 2011, the Group operates a research and development team that consists of 125 engineers and 56 of them are university graduates. The Group's engineers are distributed in Hong Kong, Shenzhen, Dongguan and Taiwan. The primary mission of the research and development team is to develop products to meet complex criteria in relation to product features and specifications, quality, costing and time to market.

The Group's research and development activities can be categorised into two main types: PC products (including video graphics cards) and EMS.

For PC-related products, the research and development team takes the information of chipsets from the technology suppliers, together with market information from the Group's sales and marketing team to develop products as defined. The major steps in product design and development include component selection, circuit and PCB design debugging, performance optimisation, reliability test, pilot run and mass production. The entire product development process complies with the ISO 9001 quality system where reviews are done and documented at the completion of most of the major steps. When required, the technology suppliers are also involved in reviewing the Group's product designs. In addition to the regular functional tests, the Group also runs a 9-7-7 EMI pre-scan chamber to ensure that the products' EMI emission level conforms to international standards.

For EMS, the research and development team is involved in optimising the cost and manufacturability of products. Where applicable, reliability tests are also conducted.

The Group has established procedures in determining the necessary stages for its product design and development process, followed by reviews, verifications and validations that are appropriate to each design and development stage. The Group conducts various tests, such as real time design rules checking, signal integrity measurement, S&H compatibility test, system integration test, dynamic and static burn-in test, environmental stress test, accelerated life test and packaging test, on the products designed by the Group. By conducting these tests, the Group aims to deliver products with the highest quality and reliability to its customers.

**Real time design rules checking:** The Group's engineers input certain design parameters into a design software. While the engineers design the layout of the PCB, the layout of the PCB is checked, in real-time condition, against the pre-set constraints and warnings will be given out if the constraints are violated.

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**Signal integrity measurement:** It is a sophisticated product development process which requires advanced equipment and technical know-how. The Group's engineers test critical signals on the newly designed product, for example a video graphics card, and compare the results against industry standards, enabling the video graphics card to be used in PCs at different tolerance and quality levels.

**S&H compatibility test:** The software and hardware compatibility test is a design verification test to check the product's compatibility with different software and hardware.

**System integration test:** A complete PC system is built to check the mechanical fittings of the products manufactured by the Group. Testing software is run to test the system's functionality.

**Dynamic and static burn-in test:** Dynamic burn-in means running the product's system with testing or benchmarking software to check the system's reliability; Static burn-in means connecting the product with power supply only to test the product's reliability.

**Environmental stress test:** The product's system is tested under extreme conditions. (e.g. different temperatures, humidity and voltages).

**Accelerated life test:** It is a simulated aging test aiming to test the life of the products and components.

**Packaging test:** This includes drop test and vibration test for the products with box packaging. It aims to test the protection ability of the product's packaging during the shipping process.

For the three years ended 31 December 2010 and in the six months ended 30 June 2011, the research and development department of the Group produced 180, 202, 179 and 79 PCB layout design definitions, respectively. A PCB layout design definition may be used to derive a number of video graphics card models. In 2010 a large proportion of the new GPUs released by NVIDIA were released late in the year and were of a high-end nature. High end GPUs generally breed fewer variant models of video graphics cards. This is due to the fact that the market size and number of end-users in the higher end market segments are comparatively smaller than those of the lower end segments, so video graphics card manufacturers generally offer fewer variant models to the higher end market segments. In order to improve product management and inventory control, the Group decided to produce less variant models for the market. The Group encouraged ODM customers to order existing models instead of demanding the creation of new variant models. GDDR2 and GDDR4 SGRAM technology were being phased out by memory manufacturers in 2010 and as a result, the Group no longer required to create variant models compatible with such versions of SGRAMs. Furthermore, during 2010, there were more new GPUs

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that were “pin-to-pin” compatible with existing circuitry, hence further reducing the need for new variants to be designed by the Group. The Group’s revenue from video graphics cards for the three years ended 31 December 2010 and in the six months ended 30 June 2011 was HK\$3,598 million, HK\$3,920 million, HK\$4,339 million and HK\$1,920 million, respectively.

Apart from video graphics cards, the Group introduced a new product, namely MAGs (Mini All-in-one Giant) and ZBOX, which is a small PC designed for multi-media high-definition video playback, in 2009. The Group plans to continue to introduce new products under the Group’s ZOTAC brand in the future. As at the Latest Practicable Date, the Group has 5 pending patent applications. For the three years ended 31 December 2010 and in the six months ended 30 June 2011, the Group’s research and development expenditures were approximately HK\$17 million, HK\$18 million, HK\$25 million and HK\$12 million, respectively.

### **Collaboration with the Hong Kong University of Science and Technology**

As at the Latest Practicable Date, the Group is an industrial member of the Hong Kong University of Science and Technology Electronic Packaging Laboratory (“HKUST EPACK Lab”). The HKUST EPACK Lab conducts testing and failure analysis on electronic components and board assemblies of the Group. The Group is also able to gain access to HKUST EPACK Lab facilities and benefit from the inspection and consulting services provided by the HKUST EPACK Lab. In February 2010, the Group utilised EPACK Laboratories of HKUST to carry out connection bonding integrity tests on PCB samples from a number of suppliers to enable the selection of a suitable PCB for production use.

In August 2010, after carrying out in-house thermal shock tests on a supplier’s PCB, the Group proceeded to the HKUST EPACK Lab for further cross sectioning and mechanical stress failure analysis. Results of the analysis enabled the Group to qualify the said supplier’s PCB.

For the three years ended 31 December 2010 and in the six months ended 30 June 2011, the Group paid HKUST EPACK approximately HK\$NIL, HK\$90 thousand, HK\$110 thousand and HK\$130 thousand, respectively.

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### KEY CUSTOMERS

The Group's main products are video graphics cards, which accounted for approximately 82%, 83%, 78% and 66% of the turnover of the Group for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. The Group manufactures MBA video graphics cards for AMD, and supplies video graphics cards, on an ODM basis, to some of the manufacturers of computer products, such as Hon Hai Precision. The Group manufactures video graphics cards for Sapphire on OEM and ODM bases. The Group also sells its own branded video graphics cards through its distributors globally.

Sapphire, one of the Group's top two customers, which accounted for approximately 13%, 11%, 9% and 8% of the turnover of the Group for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively, was an associate company of the Group prior to January 2008 when the Group's interest in Sapphire was reduced from 40% to 18.18%. At the end of the Track Record Period, the Group's interest in Sapphire was further reduced to 4.95%.

The Group's EMS division carried out contract manufacturing for EMS customers, which engaged the Group to manufacture other electronic components and products such as computer base units of POS and ATM systems, flash memory modules and Internet Media Tablets.

The Group's other PC-related products include mini-PCs and PC motherboards. These are the Group's own branded products, and are mainly sold to its distributors globally.

The Group's top five customers combined accounted for approximately 44%, 39%, 40% and 40% of the turnover of the Group for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. For the same periods, sales to the single largest customer of the Group accounted for approximately 13%, 11%, 10% and 16%, respectively of the Group's total turnover.

In general, during the Track Record Period, credit periods of 30 to 60 days were granted to the customers.

The five largest customers are mainly the customers of ODM/OEM video graphics cards, distributors of the Group's own brands of products, and major EMS customers including the POS and ATM systems, the flash memory modules, and Internet Media Tablet over the Track Record Period. Some of the largest customers first started to do business with the Group in 1997 and the newest one of such customers have also built up at least a three years business relationship with the Group. The Group's top five customers combined accounted for approximately 44%, 39%, 40% and 40% of the sales revenue of the Group



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for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. The Group does not rely on its customers for their technology development for the ODM/OEM video graphics cards business. The Group has solid experience and technological know-how on design of video graphics cards with the capability to develop its own video graphics cards. However, the Group relied on the technology of the GPU providers, AMD and NVIDIA, to develop the Group's video graphics cards. Unsuccessful technology development of the GPU by AMD and NVIDIA would adversely impact on the financial performance of the Group. The Company is relying on the technology development of the EMS customers since the change of the life cycle of the EMS products and competition encountered by the EMS customers would have an adverse impact to the Company's financial performance.

The Group owned a 4.95% interest in Sapphire as at the Latest Practicable Date. The rest of the top five customers are Independent Third Parties.

### SALES AND DISTRIBUTION CHANNELS

#### A. Sales

The Group is principally engaged in the design, development, manufacturing, marketing and sales of video graphics cards. Video graphics cards represented approximately 82%, 83%, 78% and 66% of the Group's revenue for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. The Group has three sales channels. (1) ODM/OEM contract manufacturing of video graphics cards for third parties; (2) EMS business and (3) the Group's own branded products.

##### *1. ODM/OEM contract manufacturing video graphics cards for third parties*

During the three years ended 31 December 2010 and in the six months ended 30 June 2011, the ODM/OEM contract manufacturing business of the Group in respect of video graphics cards accounted for 57%, 52%, 48% and 36% of the Group's turnover, respectively, which is equivalent to HK\$2,507 million, HK\$2,454 million, HK\$2,654 million and HK\$1,045 million, respectively.

The decrease in the percentage of ODM/OEM video graphics cards contract manufacturing revenue on the Group's total sales revenue from the year ended 31 December 2008 to the year ended 31 December 2009 was mainly due to the revenue growth in the Group's own brand video graphics cards.

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The decrease in percentage of ODM/OEM video graphics cards contract manufacturing revenue on the Group's total sales revenue from the year ended 31 December 2009 to the year ended 31 December 2010 was mainly due to the revenue growth in EMS business.

The decrease in percentage of ODM/OEM video graphics cards contract manufacturing revenue on the Group's total turnover from the six months ended 30 June 2010 to the six months ended 30 June 2011 was mainly due to a reduction in ODM/OEM orders and an increase in the turnover of EMS business.

Please refer to the section headed "Financial Information — Comparison of results of operations" for further information.

The Group carries out contract manufacturing of add-in video graphics cards for some manufacturers of computer products such as Hon Hai Precision and has a stable customer base. As at 30 June 2011, the top five customers of the said OEM/ODM contract manufacturing business have been customers of the Group for at least 5 years.

The OEM/ODM contract manufacturing business is led by one of the Group's executive Directors, who is based in Hong Kong. The Group utilises one representative under an annual agreement based in the UK, which is automatically renewed (unless otherwise terminated) each year for further period of one year. He is under a sales representative agreement with the scope covering OEM/ODM video graphics cards, motherboards and other products agreed with the Group from time to time. He is responsible for promoting the Group's products, introducing new customers to the Group, resolving marketing engineering, quality matters, and accounts receivable matters. The remuneration package for the said agreement consists of (1) a monthly retaining fee, which is subject to review annually and (2) a quarterly scaled performance incentive payment.

The Group engaged an engineering and marketing representative based in Germany under an annual agreement, which is automatically renewed (unless otherwise terminated) each year for a further period of one year. The representative is responsible for OEM/ODM video graphics cards, motherboards and other related products as agreed from time to time.

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The remuneration is based on a monthly retaining fee, reimbursable expenses with cap, quarterly incentive based on number of units of products “sold and paid for” and a per unit commission for video graphics cards. The engineering and marketing representative is liable to payment deductions for amounts equal to aged debtors over 90 days or sales credits against returned defective products.

The number of ODM/OEM contract manufacturing customers is 80, 68, 72, and 51 for the three years ended 31 December 2010 and the six months ended 30 June 2011, respectively. The number of ODM/OEM customers decreased over the years from 2008 to June 2011 due to (i) certain relatively small scale customers exiting the video graphics cards market and (ii) certain relatively large scale customers consolidating their outsourcing to placing orders with fewer numbers of contract manufacturers.

### **2. *EMS business***

The sales and marketing of the EMS business is managed from the head office in Hong Kong. The Group also utilises a consultant based in the US under an annual consultant service agreement, which is automatically renewed (unless otherwise terminated) each year for further period of one year. The consultant is responsible for maintaining business relationship and obtaining new orders from selected OEM/ODM contract manufacturing as well as EMS customers worldwide. The remuneration is based on a fees schedule specifying the fee applicable for each customer. Based on the Group’s reputation, certain new EMS customers are introduced to the Group through industry referrals from trade connections. The Group from time to time carries out joint business development activities with a technology vendor leveraging on the Group’s expertise in the design and engineering of the graphics related products.

### **3. *The Group’s own brands products***

The Group manufactures and sells ZOTAC and Manli branded video graphics cards and other PC related products. ASK Group outsources all the manufacturing of Inno3D branded products sold by the Group.

#### *The ZOTAC brand*

The corporate decisions on sales targets and product road maps are determined in the head office in Hong Kong with support from the regions to

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reflect local customisation requirements. The Hong Kong head office provides overall support to the marketing efforts while each region decides on their promotional focus.

ZOTAC's turnover in EMEAI, APAC, China and NALA for the three years ended 31 December 2010 and in the six months ended 30 June 2011 are as follows:

	Years ended 31 December			For the six months ended	
	2008	2009	2010	30 June	2011
	<i>HK\$'million</i>	<i>HK\$'million</i>	<i>HK\$'million</i>	(unaudited)	<i>HK\$'million</i>
EMEAI	447	502	649	243	292
APAC	102	125	161	72	121
China	106	264	390	173	278
NALA	70	177	287	150	164

(i) EMEAI region

The sales activities for the EMEAI region is led by a sales representative based in Germany, who is under an annual sales representative agreement for a period of one year (unless otherwise renewed in writing). The remuneration package consists of (1) a fixed monthly retaining fee; and (2) a profit sharing bonus, which is based on a fixed percentage on the sales revenue achieved by the representative.

The sales in EMEAI are conducted by six sales representatives covering regions including, (i) in Eastern Europe, Bosnia, Bulgaria, Croatia, Czech, Latvia, Moldova, Armenia, Romania, Turkmenistan, Ukraine, Hungary, Poland, Georgia, Slovenia and Russia; (ii) in Central Europe, Germany, Switzerland, Austria, Netherlands, Spain, Portugal, Italy, France and Turkey; and (iii) in Scandinavia, Denmark, Finland and Sweden. Most of the sales representatives are under an annual sales representative agreement with the Group, which will be either automatically renewed (unless otherwise terminated) each year or continue until terminated by either party to the agreement. The remuneration package consisted of (1) a fixed monthly retaining fee; and (2) either a commission, which is based on a fixed percentage on

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net invoiced amounts in relation to the relevant sales, or a discretionary bonus. Each sales representative agreement specifies the respective countries of coverage. In addition, such sales representatives are responsible to resolve accounts receivable matters due to the Group with concerned customers.

The sales representatives carry out business development and normally will engage and service one or two distributors in each district. Purchase orders from EMEAI distributors are placed directly with Zotac Macao. The credit terms are decided by the head office in Hong Kong. Dongguan Baineng produces ZOTAC products for Zotac Macao and Zotac Macao sells the ZOTAC products to EMEAI distributors.

(ii) APAC region

Sales in the APAC region is managed by a senior sales manager and a sales manager; they are both employees of the Group based in Hong Kong. In Hong Kong, the Group sells directly to local distributors. For Japan, Australia, Indonesia, Malaysia and Thailand, the Group engages at least one importer for each respective country. The importers, being customers of the Group, place orders and purchase products from the Group and resell the products to distributors in their countries.

Zotac Korea was incorporated on 12 May 2010 as a platform to further develop the presence of the ZOTAC business in Korea. Zotac Korea sources its ZOTAC products from Zotac Macao, which are produced by Dongguan Baineng. Zotac Korea acts as an importer of ZOTAC products into Korea, which in turn sells the products to distributors in Korea.

(iii) China region

The China region is led by a sales manager, who is an employee of the Group in charge of the sales of the PRC. The Group, through a legitimate foreign enterprise human resources service provider pursuant to a labour dispatch agreements, engages eleven persons in charge of business promotion and liaison support for a term ending 30 June 2013 or 31 December 2014 (as the case may be) according to their labour contracts with the said service provider, which may be renewed according to the needs of the Group if agreed by both parties to the labour contracts. Such persons provide promotion and liaison support in different regions of China including Nanjing, Guangzhou, Wuhan

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and Chengdu. The Group engages two importers, being customers of the Group, for China. The importers place purchase orders with and purchase products from the Group in Hong Kong.

(iv) NALA region

Zotac Nevada and NALA Sales (each then 60% held by the Group) were incorporated in 2007 to develop the sale of the ZOTAC products in the NALA region. The sales in this region is led by a head of sales based in Hong Kong, who is an employee of the Group. After the Reorganisation with regard to ZOTAC US (for details, please refer to the section headed “History and development — Reorganisation” in this prospectus), NALA Sales entered into a sales agent and services agreement with Zotac Nevada under which NALA Sales shall act as non-exclusive sales agent for ZOTAC within the US to promote and arrange for sales of ZOTAC products within the US. The initial term of the said sales agent agreement is for three years expiring 31 December 2013, which is automatically renewed (unless otherwise terminated) for further period of three years. NALA Sales is entitled to service payments and reimbursement of expenses to be settled quarterly. The service payment is determined as a percentage of the after-tax earnings of Zotac Nevada on a sliding scale.

*Inno3D brands of ASK Group*

The corporate decisions on sales targets and product road maps are determined by ASK Group in Hong Kong. The main markets of ASK Group’s products are EMEAI and APAC.

(i) EMEAI region

ASK Group’s products are sold to 25 countries in EMEAI. In the UK, Russia, the Ukraine, sales and marketing activities are covered by sales representatives under agreements with the Group. For the other countries in EMEAI, sales and marketing activities are covered by staff of the Group based in Hong Kong.

(ii) APAC region, Hong Kong and China

ASK Group’s products are sold to 11 countries in APAC in addition to Hong Kong and China. Sales and marketing activities are covered by staff of the Group based in Hong Kong.

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### *The Manli brand*

The corporate decisions on sales targets and product road maps are determined by Manli Group in Hong Kong. The main markets of Manli Group's products are EMEAI and APAC.

(i) EMEAI region

Manli Group's products are sold to 5 countries in EMEAI. Manli Group's sales and marketing activities are covered by staff of the Group based in Hong Kong.

(ii) APAC region and Hong Kong

Manli Group's products are sold to 6 countries in APAC in addition to Hong Kong. Sales and marketing activities are covered by staff of the Group based in Hong Kong.

## **B. Pricing policy**

### *Introduction*

The Group prices products and services on the basis of a cost-plus calculation methodology. The prices of products and services are derived from the sum of three elements, namely, (i) total cost of materials on the basis of current prices; (ii) "value-added" costs, comprising pre-manufacturing costs, equipment usage, production and testing services, packaging, logistics, selling and administration overheads ("value-added costs"); and (iii) a reasonable profit margin determined by the management based on market practice, economic situation, the Company's annual profit target, etc. ("profit margin"). Market prices of high value components, GPU and commodity items such as RAM are constantly monitored and reflected in quotations or selling prices to customers as soon as possible, and prices of the bill-of-materials of products are constantly updated to assure that product costs are as current as possible.

The Group would estimate the assembly cost on the basis of product complexity and specific customer requirements in order to come up with the assembly fee, which would be charged on top of the material costs to arrive at the selling price for the assembly of video graphics cards for ODM/OEM contract manufacturing customers. The Group would refer to the bill of materials provided by the customers to estimate

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the assembly charge. The component count on the video graphics cards and the through hole assembly required for manufacturing would be taken into consideration for the price quote. Furthermore, the Group would also assess the labour resources, the factory and administrative overheads, specific quality control measurement, testing requirement, packing and shipping cost, trial run cost, sales warranty, finance costs and then add in the profit margin to determine the selling price for the ODM/OEM contract manufacturing business.

### *Own brands products*

In the case of the sale of the Group's own brands products to importers and distributors, price quotations are evaluated on weekly basis and, if appropriate and with reference to manufacturers' suggested retail prices ("MSRP") provided by GPU manufacturers, adjusted to reflect the cost change.

### *ODM/OEM contract manufacturing*

In the case of the ODM or OEM contract manufacturing, pricing is based on the current prices for the bill-of-materials costs plus the value-added costs and profit margin. The Group evaluates prices on a monthly basis for long-term orders and, if appropriate, adjusts the prices to reflect the change in prices.

The Group carries out contract manufacturing on an OEM basis for AMD. AMD provides GPUs to the Group on a consignment basis. AMD retains title over such consigned GPUs. Certain components and materials such as RAM may be provided by AMD on a consignment basis from time to time. The Group always procures fansinks and PCBs on behalf of AMD and such components would be accounted for as purchases of the Group and expensed as cost of sales. The Group would procure any remaining components and materials necessary for the assembly of MBA video graphics cards. Most of the components and materials are sourced from AMD approved vendors, as required.

The Group carries out contract manufacturing on OEM or ODM bases for Sapphire. Sapphire provides GPUs to the Group on a consignment basis. Sapphire retains title over such consigned GPUs. Sapphire may choose to consign certain other components and materials to the Group and require the Group to procure any remaining components and materials necessary for the assembly of video graphics cards and such components would be accounted for as purchases of the Group and expensed as cost of sales. The exact requirements varied from time to time.



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Other ODM/OEM contract manufacturing customers, such as Hon Hai Precision, which engage the Group to assemble video graphics cards, usually require the Group to procure all the components and materials necessary for the assembly of video graphics cards and such components would be accounted for as purchases of the Group and expensed as cost of sales. Such customers have specific quality and testing requirements to meet their specifications, and the Group would add certain charges for the service of satisfying specific requirements. The Group would also add an agreed percentage premium into the selling price to cover potential costs of returns. As an industry practice, the Group would seek reimbursement for the costs of inventories of slow moving or obsolete components and materials, which are procured specifically for such customers.

### *EMS*

In the case of the EMS business, except for the materials and components consigned to the Group by the customers, costs of other materials sourced and supplied by the Group on behalf of the customers shall be updated to the costs of the bill-of-materials and passed on to the customers directly. Prices of quotation are based on the most current cost of the bill-of-materials, plus the value-added costs and profit margin.

To the extent that actual costs are different from anticipated manufacturing costs, the Group's realised margin may differ from that anticipated. Actual costs, and therefore profitability, may vary due to factors such as the ability to achieve the Group's target productivity performance and the ability to procure materials and input components at prices quoted by the suppliers. This pricing policy provides a profit incentive to maximise efficiency and procurement power. However, if conditions are adverse, the Group may experience reduced margins in the short term.

### **C. Credit policy**

The Group has a credit policy in place and the exposures to credit risks are monitored on an ongoing basis. In respect of trade receivables, individual credit evaluations are performed on all customers requiring credit. Ongoing evaluations are performed on the financial condition of trade customers. Debtors with balances that are more than 3 months overdue, further credit will only be granted under management's approval, otherwise, debtors are requested to settle all outstanding balances before any further credit is granted. Normally, the Group does not obtain collaterals from customers.

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However the Group has purchased credit insurance for the Group's trade receivables. Credit insurance companies assess the creditability of the Group's customers individually, and fix the insured credit limits of each customer. Credit insurance companies charge certain percentage of total insurable turnover as annual premium and compensate the Group for proven uncollectable trade receivables within insured credit limits. Annual maximum liability of credit insurance companies ranges from 24 to 75 times of actual premium paid by each group company of the Group. Total premium paid were approximately HK\$3.7 million, HK\$5.8 million, HK\$6.9 million and HK\$4.1 million respectively for the years ended 31 December 2008, 2009, 2010 and in the six months ended 30 June 2011. Total insured trade receivables accounted for approximately 57%, 49%, 48% and 56% of the Group's total trade receivables as at 31 December 2008, 2009, 2010 and 30 June 2011. In this regard, the Directors consider the Group's credit risk to be significantly reduced.

### **D. Seasonality effect on the business of the Group**

The business of the Group is subject to seasonality effect. Such effect had significant impact on the Group's sales revenue and financial performance during the peak season of PC Partner (the most important subsidiary of the Group in terms of sales and revenue) during the Track Record Period. The sales of PC Partner tended to increase in the fourth quarter of each year during the Track Record Period, which was due to the typical consumer spending pattern increasing around the Christmas and new year holidays season. The sales revenue in the fourth quarter of 2009 and 2010 represented 31% and 32% of the total sales revenue of the respective years. The Group's own brands of video graphics cards, ODM/OEM video graphics cards for the retail market, ODM/OEM video graphics cards assembled for PC manufacturer customers sold by PC Partner were subject to similar seasonality effect driven by the holiday seasons. The seasonality trend is also applicable to the sales of other PC-related products and some of the EMS products such as Internet Media Tablets and the flash memory modules sold by PC Partner, which shared the same seasonality effect driven by the holiday seasons.

## **MARKETING OF THE GROUP'S OWN BRANDED PRODUCTS**

### **1. ZOTAC**

The marketing strategy is driven from the head office in Hong Kong and formulated based on the technology roadmaps devised by the product management teams. There are three product management teams covering (1) video graphics cards, (2) motherboards and (3) mini-PC. The sales targets are determined based on prior results and the required growth for the following year.

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An annual marketing budget is set with reference to the sales targets. The marketing budget is allocated to the EMEAI, APAC, China and NALA regions to deploy in funding joint promotional programmes with distributors.

During the Track Record Period, ZOTAC exhibited in the following international trade shows every year: CES, CeBIT and Computex. ZOTAC also maintains an internet website [www.zotac.com](http://www.zotac.com), enabled in 15 languages which acts as an interactive marketing channel between the Group and its customers. The website also serves to introduce the Group's products to potential customers worldwide and provides a platform for rendering technical support to its customers.

As it is important to focus on the local requirements of each market, the Hong Kong head office provides overall support to the marketing efforts while each region decides on their promotional focus. In the EMEAI region, there are front line marketing and public relations personnel based in Germany, UK, Turkey and the United Arab Emirates. These personnel are under service agreements with the Group.

In the APAC region, there are front line personnel based in Hong Kong. In the China region, there are front line personnel based in Shenzhen, the PRC. In the NALA region, Zotac Nevada engaged NALA Sales to act as sales agent for ZOTAC within the US to promote and arrange sales of ZOTAC products within the US as well as outside the US with prior written consent. Personnel based in Hong Kong and the PRC are employees of the Group.

### **2. Brands under ASK Group**

The marketing strategy for the Inno3D is driven by ASK Group from Hong Kong. ASK Group has exhibited Inno3D at DISTREE XXL, CeBIT and Computex every year during the Track Record Period. As worldwide launch partners of NVIDIA, Inno3D is named in NVIDIA new products press releases. To coincide with product launch, ASK Group makes announcement on the Inno3D website, issues press releases and arranges media product reviews. In terms of social media networking, ASK Group maintains its Facebook page and Youtube channel to disseminate product information.

### **3. Manli**

The marketing strategy for Manli products is driven by Manli Group from Hong Kong. Manli Group has exhibited at Computex every year during the Track Record Period. In addition, it exhibited at CeBIT and GITEX Technology Week in 2008, at GITEX Technology Week and DISTREE XXL in 2009. To coincide with product

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launch, Manli Group makes announcement on their website, issues press releases and arranges media product reviews. In terms of social medial networking, Manli Group maintains its Facebook page to disseminate product information.

Manli Group generally pays one or two visits to the most important customers worldwide every year.

### AFTER SALES SERVICES

The Group recognises the importance of providing efficient and effective after-sales service to customers of its ZOTAC products. For the ZOTAC branded products, each region has its own after-sales service arrangement.

In the EMEAI region, customer service and technical support are undertaken by a contractor of the Group based in the UK. Returns are only accepted when accompanied by an RMA form issued to the customers of the ZOTAC branded products in question. A buffer stock is maintained by the service company in the UK for products replacement purposes. Technical assessments of the returns are first made in the UK and faulty products are returned to the factory in China for repairs.

In the APAC region, customer service and technical support are handled by the staff based in Hong Kong. Returns are only accepted when accompanied by an RMA form issued to the customers of the ZOTAC branded products in question. Faulty products are returned to the factory in China for repairs.

In China, customer service and technical support are handled by the staff based in China. Returns are only accepted when accompanied by an RMA form issued to the customers of the ZOTAC branded products in question. Faulty products are returned to the factory in China for repairs.

In Hong Kong, customer service and technical support are handled by the technical support department based in the head office. The Hong Kong based technical support department also handles technical enquiries and provides support to distributors worldwide.

In the NALA region, customer service is provided by NALA Sales in the US.

Generally, under the terms of the Group's certain sales agreements, the Group will rectify any product defects arising within three years from the date of sale. The Group also has a policy allowing the customers to return any defective products within two years after the delivery of products.

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Provision is therefore made for the best estimate of the expected settlement of warranty under sales agreements and sales returns policy in respect of sales made during the Track Record Period. The amount of provision for warranty takes into account the Group's recent claim experience and is only made where a warranty claim is probable whilst the amount of provision for sales returns is estimated by management with reference to the past experience and other relevant factors. For the three years ended 31 December 2010 and in the six months ended 30 June 2011, the value of returns of the Group were HK\$20.6 million, HK\$31.6 million, HK\$36.1 million and HK\$18.9 million, respectively. There was no product recall during the Track Record Period.

### SUPPLIERS AND RAW MATERIALS AND COMPONENTS

Video graphics cards are the most important products of the Group and they accounted for approximately 82%, 83%, 78% and 66% of the turnover of the Group for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. Of all the raw materials and components used for video graphics cards and other PC-related products manufacturing, the GPUs are the most critical components, which are sourced from NVIDIA and AMD by the Group. Other principal raw materials and components used for the manufacturing of video graphics cards and other products of the Group include RAM, PCB, heatsink (including fansink) and other electronic components. The purchases of ASIC (including GPU), RAM, PCB and heatsink, collectively accounted for approximately 62%, 68%, 66% and 64% of the Group's total purchases for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. The purchases of other electronic components, such as capacitors, transistors, connectors and ICs, accounted for approximately 38%, 32%, 34% and 36% of the Group's total purchases for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. The Group purchases these raw materials and components from a number of suppliers. The Group has not in the past encountered any significant disruption in its production which was caused by shortage of supply in raw materials and components.

Among the principal raw materials and components, the market price of RAM tended to be relatively volatile. The purchase of RAM accounted for approximately 9%, 14%, 20% and 17% of the Group's total purchases for the three years ended 31 December 2010 and in the six months ended 30 June 2011, respectively. For the Group's ODM contract manufacturing business, RAM prices are reviewed on a monthly basis for long-term orders and on a case by case basis upon receiving requests for quotations for single production run orders. The knock-on effects to the prices of finished goods are communicated to customers. For the Group's EMS and OEM/ODM contract manufacturing businesses, RAM and certain other components are consigned by customers. Therefore, price fluctuations of the principal raw materials and components are passed onto the customers for the EMS, OEM and ODM businesses. In respect of the business of ZOTAC branded products, the Group conducts internal meetings on a weekly basis to review market prices and inventory levels of RAM. Prices of ZOTAC branded finished goods for distributors are determined

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and locked-in on a weekly basis accordingly. The Group maintains a level of strategic inventory of RAM by estimating its production demand and closely monitoring the world RAM market. The Group aims not only to maintain adequate supply for its production consumption, but also to smooth out material and component prices for its customers. The Group maintains a number of RAM suppliers in order to avoid being overly dependent on one single supplier. During the three years ended 31 December 2010 and in the six months ended 30 June 2011, the largest RAM supplier accounted for 37%, 34%, 37% and 34% of RAM, respectively, in monetary terms purchased directly by the Group.

### **Inventory control**

In view of the rapid development in technology in the PC industry, the Group adopts stringent inventory control policies to avoid obsolescence in raw materials and components and finished products, which would negatively impact on the Group's financial position. Periodic review of the inventory is performed and aging reports are generated by the ERP system, and slow-moving and obsolete stock items can be identified. Inventories are regarded as obsolete when they are considered not saleable or no longer suitable for production usage. In addition, the Group also performs physical stock-take on its inventory twice every year. During the physical stock-take, all damaged, defective or obsolete inventory items are identified and written off. In addition, the result of the physical stock-take will be compared with the data from the inventory reports generated by the ERP system, and if there is any discrepancy, the data in the ERP system will be updated.

Specific provisions for inventory will also be made when there are slow-moving or obsolete stock items. In accordance with the Group's inventory policy, stock obsolescence provisions are made on a semi-annual basis for stock over one year old. The policy was consistently applied in the Track Record Period. During the Track Record Period, the Group made provisions of HK\$7.7 million, HK\$0.5 million, HK\$1.7 million and HK\$7.7 million, respectively, which equated to 0.18%, 0.01%, 0.03% and 0.26% of turnover respectively.

The five largest suppliers consist of suppliers for GPU, RAM, PCB, and specific chipset supplier for the Internet Media Tablets over the Track Record Period. Majority of these suppliers have established long term relationship with the Group for over five years and some of the suppliers first did business with the Group in 1997. The others among the top five suppliers have at least two years of business relationship with the Group. The Group relies on the technology development of GPUs by AMD and NVIDIA. Their productivity in terms of, for example, introducing new GPUs to the market, could have impact on the Company's financial performance. Other suppliers of RAM and PCB have long stable and established business relationship with the Group. The technology development of their products is not expected to have as significant impact on the Group as the GPU providers due to the existence of alternative providers.

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For the three years ended 31 December 2010 and in the six months ended 30 June 2011, purchases from the top five suppliers represented approximately 45%, 49%, 49% and 46% of the Group's total purchases, respectively. For the same periods, purchases from the top supplier represented approximately 27%, 36%, 33% and 28% of the total purchases of the Group, respectively.

The top five suppliers of the Group for the three years ended 31 December 2010 and in the six months ended 30 June 2011 are Independent Third Parties.

### **Seasonality effect on the business of the Group**

The business of the Group is subject to seasonality effect. Such effect had had significant impact on the Group's sales revenue and financial performance during the peak season of PC Partner (the most important subsidiary of the Group in terms of sales and revenue) during the Track Record Period. The sales of PC Partner tended to increase in the fourth quarter of each year during the Track Record Period, which was due to the typical consumer spending pattern increasing around the Christmas and new year holidays season. The sales revenue in the fourth quarter of 2009 and 2010 represented 31% and 32% of the total sales revenue of the respective years. The Group's own brands of video graphics cards, ODM/OEM video graphics cards for the retail market, ODM/OEM video graphics cards assembled for PC manufacturer customers sold by PC Partner were subject to similar seasonality effect driven by the holidays season. The seasonality trend is also applicable to the sales of other PC related products and some of the EMS products such as Internet Media Tablets and the flash memory modules sold by PC Partner, which shared the same seasonality effect driven by the holiday season.

### **Key costs components**

Of all the components required to manufacture a video graphics card, GPU is the most expensive component. During the Track Record Period, the price, which the Group purchased GPUs ranged from approximately US\$5.0 to US\$300.0. Purchase of GPU accounted for approximately 35%, 38%, 34% and 36% for the Group's total materials purchases for the three years ended 31 December 2010 and for the six months ended 30 June 2011, respectively.

Relative to the other components, RAM is considered to be slightly more expensive. During the Track Record Period, the price, which the Group purchased RAM ranged from approximately US\$0.8 to US\$6.0 per unit. Purchase of RAM accounted for 9%, 14%, 20% and 17% of the Group's total raw material purchases for the three years ended 31 December 2010 and for the six months ended 30 June 2011, respectively. Similar to GPU, the top five manufacturers RAM together produced approximately 90% of the world's output.

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Because of the relatively short life cycle of video graphics cards, the price of all the key underlying materials are subject to volatile fluctuations especially at times when imbalance between supply and demand occurs.

For the Group's ODM/OEM contract manufacturing changes in material prices can be passed on to its customers generally and as such the impact on the Group's profit margins would be minimal. This would not be the case for the Group's own brands products when there is an unexpected increase in the price of any of the key components and yet the Group may not be able to readily raise the selling price of its products in the retail market. Any significant fluctuation in the price of the key components could adversely impact on the Group's profit margin.

During the Track Record Period, the prices of the key components were considered to be relatively stable.

### **Procurement**

To enhance the Group's control over suppliers and raw materials and components, the Group has deployed an ERP (enterprise resource planning) system provided by Oracle in 2007. This ERP system is an integrated software, which helps the Group manage procurement, inventory, manufacturing planning and distribution.

The Group has a dedicated Material Planning team to monitor the inventory level of raw materials and components by coordinating closely with the Group's purchasing teams and sales teams.

In order to respond proactively to market situation, but at the same time avoid excessive lock-up of working capital and reduce the impact of the fluctuation of raw materials and components market price, the Group's purchasing teams have maintained good relationship with certain suppliers, and frequently communicate with suppliers to give indication of the Group's future requirements for raw materials and components. Such arrangements have so far provided comfort to the Group in securing raw materials and components. Only in respect of those raw materials and components, which need long lead time between ordering and delivery and only have limited number of suppliers such as fansinks and PCBs, the Group will place binding purchase orders from between one week and two and a half of months in advance. For each of the three years ended 31 December 2010 and in the six months ended 30 June 2011, purchases from the five largest suppliers in aggregate accounted for approximately 45%, 49%, 49% and 46%, respectively of the Group's total purchases.



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### Payment terms

The Group's purchases are principally settled in US dollars, Hong Kong dollars and Renminbi mostly on open accounts with credit periods of 30 to 90 days being offered to the Group by its suppliers.

### COMPETITION

The PC video graphics card industry is highly competitive and is characterised by rapid technological and consumer preference changes, new product development, rapid product obsolescence, and significant price erosion over the life of a product, among other factors.

The Group aims to compete on the basis of the following key characteristics: engineering expertise, in-house state-of-the-art and flexible manufacturing system, product reliability, pricing, performance, quality, functionality and design that can be efficiently commercialised and manufactured in volumes, and time-to-market delivery capabilities.

The amalgamation of the businesses of ASK Technology Limited and Manli Technology in April 2008 into the Group has since resulted in significant benefit to the cost structure of the Group through volume discounts.

The Group benefits from having the flexibility of in-house engineering expertise and SMT manufacturing facilities not only to provide a sustainable platform for developing and manufacturing new products for its own brands, but also the ability to offer comprehensive ODM design to better meet the performance of its video graphics cards for ODM/OEM contract manufacturing customers. The Group also believes that it differentiates itself by offering quality products, customer focused service and continual technological enhancement.

Over the years the Group has developed relationships with the world's two main manufacturers of GPUs, namely, AMD and NVIDIA. The Group is one of the contract manufacturers of AMD's MBA video graphics cards. The Group through its wholly owned subsidiaries has achieved and maintained the NVIDIA Authorised Add-in Card Partner status since 2006, through which the Group is eligible for the rebate programmes and special discounts that NVIDIA offers from time to time. At the same time, the Group has also been granted and maintained NVIDIA Authorised Board Partner status since 2006 for EMEAI, since 2008 for APAC and since 2009 for NALA. Qualification as NVIDIA Add-in Card Partner is at the discretion of NVIDIA management. There is no contractual fulfilling condition for the Group to maintain the NVIDIA Add-in Card Partner status. The said status can also be achieved by other manufacturers.

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### REAL PROPERTY

As of the Latest Practicable Date, the Group leases all but one of its properties in use. For details of the Group's properties, please refer to the Property Valuation Report set out in Appendix III to this prospectus.

#### **Properties owned by the Group**

As of the Latest Practicable Date, the Group holds one property with a total gross floor area of approximately 341.5 sq.m. in Hong Kong (namely Group I property numbered 1 in the Property Valuation Report) for workshop and ancillary office purposes.

#### **Properties leased by the Group**

##### *Hong Kong*

As of the Latest Practicable Date, the Group leased a total of eight properties with a total lettable area of approximately 3,165.1 sq.m. in Hong Kong, all of which were for office, warehouse, workshop, dormitories and associated facilities (namely properties in Group II numbered 2 to 9 in the Property Valuation Report).

##### *The PRC*

As of the Latest Practicable Date, the Group leased a total of seven properties with a total lettable area of approximately 152,987 sq.m. (Group III No. 10-16) in the PRC. The Group has been advised by its legal advisers as to PRC laws that three properties (comprising three plants and ancillary buildings) in Dongguan, the PRC (Nos. 12 and 13 of Group III in the Property Valuation Report in Appendix III to this prospectus), with a total lettable area of approximately 150,318.9 sq.m., are rented from Dongguan Haifu Shiye Limited ("Dongguan Haifu"), which is authorised by Dongguan Yufu Shiye Limited ("Dongguan Yufu").

The buildings and associated facilities in the said properties were erected by Dongguan Yufu and Dongguan Haifu (as the case may be) with all construction costs fully paid. Dongguan Haifu or Dongguan Yufu possesses the building ownership certificates for most parts of the said properties. The building ownership certificates obtained cover a total area of approximately 147,014.9 sq.m. The Group's PRC Legal Advisers have confirmed that only approximately 3,304 sq.m. of the areas not covered by building ownership certificates were temporary structures. These structures are used as 1) shoes room, 2) guards houses, 3) refuse collection rooms, 4) disused building and 5) non-productions related repair yard.

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As the Group's PRC Legal Advisers have confirmed, 1) Dongguan Haifu and Dongguan Yufu (as the case may be) have obtained land use rights in relation to the properties; 2) both Houjie town People's Government of Dongguan City and the Village Committee of Santun Village, Houjie town of Dongguan Village have shown that the three plants were built by Dongguan Haifu. No third party has ever questioned the ownership rights of the named properties, and the government departments concerned had neither questioned the ownership rights nor taken investigation or issued any administrative penalty regarding the named properties. Dongguan Haifu did not obtain the building ownership certificates for these temporary structures due to the temporary nature of the same. Such temporary structures include certain disused buildings, shoes room, refuse collection room, guard house and non-production related repairs yard, which are not utilised by the Group in the operation of its business. Dongguan Haifu have undertaken to indemnify the Group against any loss arising from issues concerning the ownership of such properties. During the effective period of the corresponding leases, in the event that Dongguan Haifu cannot fulfill their obligations thereunder due to the removal of the said temporary structures or other reasons, they shall provide reasonable notice for the Group to relocate and shall be responsible to compensate the Group for its loss in relation to its relocation (including but not limited to the cost incurred in relation to the improvement of such properties).

Based on the indemnity provided by the Dongguan Haifu, the Directors do not anticipate the Group to be liable to and will incur potential penalty in respect of such properties. The Directors will consider taking steps to amend the leases to terminate leasing such properties to prevent future non-compliance. The Directors consider the costs of abandoning or relocating the shoe rooms, guard houses, refuse collection rooms and non-productions related repair yard as de minimus. The Directors confirm that the properties with defective titles are not crucial to the Group collectively or individually.

### *Macau*

As of the Latest Practicable Date, the Group leased one 88.26 sq.m. property in Macau (namely property numbered 17 in Group IV in the Property Valuation Report) for office purpose.

### *Overseas*

As of the Latest Practicable Date, the Group leased three properties overseas with a total lettable area of approximately 863.7 sq.m. (namely property numbered 18 to 20 in Group V in the Property Valuation Report), which are used by the Group for office and warehouse purposes.

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### INTELLECTUAL PROPERTY

As at the Latest Practicable Date, the Group had 10 registered patents, 60 registered trademarks, 5 pending patent applications and 11 pending trademark applications. Out of the 60 registered trademarks, 12 were registered under an abbreviated name of Zotac Macao and out of the 11 pending trademark applications, 4 applications were filed under an abbreviated name of Zotac Macao. According to the advice of the legal adviser to the Group on the laws of Macau, Zotac Macao, being incorporated in Macau as an offshore commercial company, must sign all documents related to the same with its full name in accordance with the rules enacted by Decree-Law no. 58/99/M, of 18 October 1999. The use by Zotac Macao of its abbreviated name, which is different from its registered name, may give rise to confusion as to the true identity of the owner of the trademarks. Therefore, the rights of the Group to the relevant trademarks may be invalid or unenforceable. As at the Latest Practicable Date, the Group has filed applications to rectify the name of registrant of 5 trademark registrations and the name of applicant of 3 pending trademark applications. As these 8 trademarks involve 6 jurisdictions and the time required for processing the rectification of the names of registrants/applicants of such trademarks differs among the different jurisdictions, the Group is therefore unable to estimate the time frame within which such rectification process will be completed. As the remaining 7 trademark registrations and 1 pending trademark applications where an abbreviated name has been used were in respect of trademarks either superseded by new trademarks or were only used in relation to discontinued products, the Group did not file applications to rectify these registrations or applications. In the mean time, while the Group awaits the rectification of the name of registrant of the aforesaid 5 trademarks registrations, such trademarks are at risk of being infringed in the jurisdictions concerned. Such jurisdictions include the PRC, Hong Kong, Brazil and Turkey. Please refer to the section headed “Risk factors — The Group may not be able to protect its patents and non-patented intellectual property rights, or the Group may be subject to claims for the infringement of intellectual property rights of others” in this prospectus, for the risks and possible impact on the Group in relation to, inter alia, the said trademarks not registered in the full name of Zotac Macao. Please refer to the section headed “4. Intellectual property of the Group” in Appendix V to this prospectus for details of the Group’s trademarks and patents.

Should the Group fail to rectify the incorrect registrations and incorrect pending registrations of any or all of the 8 trademarks concerned, in the event that there is a trademark dispute, the situation may give rise to confusion as to the true identity of the owner of the trademarks. Such trademarks are registered or pending registration and cannot be registered again by other entities in the mean time. The Group will take appropriate legal actions to defend its rights to the trademarks despite any of the aforementioned confusion. Potential infringement of trademarks may happen to both

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correctly and incorrectly registered trademarks alike. The Directors consider that the Group owns the trademarks necessary for its operations and do not anticipate any impact on the Group's operations as a consequence of the incorrect registrations or pending registrations. The financial results of the Group may be affected due to related legal expenses.

As at the Latest Practicable Date, the Group had not recorded any incident of infringement of any of the Group's patents or trademarks. In the event of any infringement of the Group's intellectual property rights, the Group may seek legal advice in the relevant jurisdiction and take legal action to protect its rights as appropriate.

### INSURANCE

The Group maintained property all risk insurance for its stock and building contents. The Group maintained product liability insurance for certain EMS and contract manufacturing customers. The products insured include video graphics cards, certain EMS products and other PC related products of certain customers. The insurance covers all sums which the certain subsidiaries of the Group shall become legally liable to pay by way of compensation in respect of injury or damage in connection with the insured products. As at the Latest Practicable Date, the Group had not received any material claim from customers regarding any of the Group's products. During the Track Record Period, the Group has not received any material claim from third parties in relation to the use of its products.

### EMPLOYEES

As at 31 October 2011, the Group employed 5,694 employees, of which 5,339 are in Dongguan, the PRC. The Group employed 125 engineers in the research and development teams in Shenzhen, Dongguan, Taiwan and Hong Kong.

The Group emphasises on continuous learning. Every staff member of the Dongguan operations is required to attend 15 to 20 hours of training to further develop their management and technical skills each year.

Employee amenities are provided where practicable. In the Dongguan operations, subsidised quarters, canteens, free libraries, computer room, sports rooms, gymnasium, basketball fields, dance/karaoke halls as well as gardens with farming beds are provided to the employees. The human resources department and the employees' recreation committee hold regular sports games, singing and talent contests, outings, interest classes and variety shows for the employees.

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The Group observes various labour laws and regulations in its places of operation. During the Track Record Period, the Group was not involved in any major labour dispute and did not receive any notification nor warning. Neither has it been subject to any fine nor legal action in relation to any breach of any relevant labour laws and regulations.

### ENVIRONMENTAL, HEALTH AND SAFETY MATTERS

#### Environmental matters

The Directors confirmed that the Group's manufacturing process does not generate significant chemical wastes, waste water, waste gases or other industrial wastes. Therefore, the impact of the Group's production process on the environment is believed to be limited. The Group is subject to the environmental protection laws and regulations promulgated by the PRC government. During the process of production, the Group has complied with applicable national and municipal environmental protection regulations in relation to, particularly, disposal of waste water, gaseous emissions, solid and industrial wastes, which are produced during the production process according to related laws and regulations. The Group runs its own waste water treatment facilities in the Dongguan operations and implements a set of waste treatment procedures (for example sorting and recycling) to reduce wastes and be friendly to the environment and the community.

The Group's Dongguan operations obtained the ISO 14001:2004 environmental management system standard certification in 2008. The environmental management system standard certification for the Group is important to the Group as they serve to enhance customers' confidence in the Group's products and are essential for the Group in promoting its products to overseas customers.

The European Union implemented the WEEE and RoHS directives in August 2005 and July 2006, respectively. Accordingly, the Group has implemented a set of hazardous substance control standards in compliance with WEEE and RoHS for the manufacturing process. For instance, externally, in the procurement of raw materials, the Group has set up and implemented a green supplier quality management system requiring that the raw material suppliers comply with the Group's requirements for green products. Internally, the Group has already established the Hazardous Substance Process Management ("HSPM") system and received the QC 080000:2005 certification in 2008.

The Group has implemented systematic procedures for environmental protection. The relevant environmental protection authorities have confirmed that the Group is in compliance with the relevant environmental protection rules and regulations. The Group's environmental protection procedures and systems are adequate to enable the Group to comply with the current applicable municipal and national environmental protection

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regulations in the PRC. The approximate annual expenses of compliance with applicable rules and regulations and other elective measures for the three years ended 31 December 2010 and in the six months ended 30 June 2011 are approximately RMB468,000, RMB1,567,000, RMB539,000 and RMB459,000, respectively. The approximate expected expenses of compliance with applicable rules and regulations and other elective measures for the year ending 31 December 2011 is approximately RMB678,000.

The Group's PRC subsidiaries, Dongguan Baineng and Dongguan Tianpei, have obtained signed confirmation letters dated 27 January 2011 and further confirmation letters dated 14 November 2011 from Dongguan Environmental Protection Bureau (東莞市環境保護局), confirming that Dongguan Baineng and Dongguan Tianpei have complied with applicable laws and regulations related to environmental protection, no pollution accidents and environmental non-compliance activities have been committed by Dongguan Baineng and Dongguan Tianpei since 1 January 2008 up to the confirmation date. As of the Latest Practicable Date, the Group had obtained all the required permits and environmental approvals for its production facilities in Dongguan.

### **Labour and safety issues**

The Group are subject to various safety laws and regulations in the PRC including the PRC Labour Law (中華人民共和國勞動法), the PRC Labour Contract Law (中華人民共和國勞動合同法), the Fire Control Law of the PRC (中華人民共和國消防法), the Production Safety Law of the PRC (中華人民共和國安全生產法) and other related regulations, rules and provisions issued by the relevant governmental authorities from time to time. The Company's human resources department, which is responsible for the formulation and implementation of human resources policies, will from time to time make adjustment, if necessary, to our human resources policies to accommodate material changes to relevant labour and safety laws and regulations to ensure their compliance. In addition, the Group has established a production safety committee (the "Safety Committee"), which is responsible for production safety and labour health and safety matters. The Safety Committee is headed by the Chief Human Resources and Administration Officer and composed of representatives from different departments. The Safety Committee members meet regularly to review our operations' safety measures and production safety standards to ensure our production safety policies comply with the requirements of the applicable laws and regulations from time to time. The Group will also seek advice from concerned government bureaus on labour and safety related compliance matters as and when required. To ensure the safety of its employees, The Group implements operational

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procedures and safety standards for our production process. The Group provide its employees with industrial safety training to enhance their safety awareness. The Group also carries out equipment maintenance on a regular basis to ensure their smooth and safety operation.

The Company confirms that its operations have complied with the applicable labour and safety regulations in all material respects, and compliance with the required measures under the applicable laws and regulations did not have a material impact on its operations and financial position during the Track Record Period.

### **Health and safety matters**

The Group's Dongguan production facilities were accredited with the OHSAS 18001:2007 Occupational Health and safety management system standard certification by TUV NORD in 2008. The facilities are subject to PRC safety laws and regulations, which set out the legal standards for health and safety measures with which the operations must comply. To ensure that the operations meet the requirements, the Group regularly reviews its occupational health and safety procedures to assure that effective measures are developed to comply with all relevant legal standards.

Since the establishment of its production facilities in Dongguan, the Group has adopted and implemented the following occupational health and safety procedures and measures: (i) establish a Safety Committee led by the Chief Human Resources, and Administration Officer to manage, review and implement necessary health and safety practices; (ii) maintain in-house clinics with qualified personnel to look after employees' health and carry out regular medical check up and provide immediate medical attention to emergent injury cases; (iii) provide guidelines and process procedures and work instructions on occupational safety, such as production safety measures and procedures for handling certain emergency situations, to all concerned employees; (iv) inspect routinely all equipment and facilities, such as elevators, heavy lifting machines, pressure vessels and piping and boilers, and obtain safety inspection certificates from the municipal regulatory bodies; (v) provide relevant training to the employees on a regular basis to increase safety awareness. As at the Latest Practicable Date, the Group had not been involved in any accident causing death or serious bodily injury in the course of its business operation.

### **LEGAL PROCEEDINGS**

As at the Latest Practicable Date, the Group had not been involved in any litigation, arbitration or administrative proceedings, which were pending or threatened against it or any of its subsidiaries, which could have a material adverse effect on its financial condition or results of operation.