

## CES 2025

### On the horizon: A focus on new AI applications

#### Key message

1. 2025 Consumer Electronics Show (CES) (January 7-10) will focus on AI applications including cloud and edge AI.
2. New gaming GPU launches are another key theme, and investors are also interested in AR/ VR, robotics, quantum computing and space tech.
3. Near term, new product catalysts are gaming GPUs, benefiting Asustek (2357 TT, NT\$605, OP), MSI (2377 TT, NT\$183, OP), Gigabyte (2376 TT, NT\$267, OP) and Auras (3324 TT, NT\$670, OP); more AR/ VR device debuts will benefit lens makers.

#### Event

The 2025 Consumer Electronics Show (CES) (Las Vegas, January 7-10) will focus on AI applications including cloud and edge AI. New gaming GPU launches are another key theme, and investors are also interested in AR/ VR, robotics, quantum computing and space tech.

#### Impact

**AI in the spotlight at 2025 CES.** The key theme at this year's CES is "Connect, Solve, Discover, Dive in". Featured topics are: (1) AI. Semiconductor giants will demonstrate technologies in HPC, while memory firms will discuss HBM4 and next-gen memory solutions. In addition to cloud AI, more edge AI applications for PC, smartphone and wearable devices are also featured; (2) vehicle tech and advanced mobility. OEMs will showcase new EV models, other themes being software-defined vehicle (SDV), ADAS, V2X and battery breakthroughs; and (3) digital health. New technologies are transforming the healthcare industry, lowering costs and improving quality.

**Showcasing new AI chips & gaming products.** AI will be the highlight of CES, especially edge AI. AMD (US) will hold a special event on January 7 to introduce two APU, Kraken Point (Ryzen AI 300 series) and Strix Halo (Ryzen AI Max 300). Intel (US) holds a keynote presentation on January 7 entitled "AI Inside for a New Era", and will debut several CPUs such as Core Ultra 200H/ HX (Arrow Lake), Core Ultra 200U (Meteor Lake Refresh) and Core 200H/ 200U (Raptor Lake). We expect PC brands to launch new Copilot+ PC models with more affordable prices (below US\$1,000) at CES, boosting the AI PC penetration rate to above 20% in 2025F. For the gaming sector, Nvidia (US) will hold a keynote speech on January 7 and showcase RTX 50 series GPUs, including RTX 5090, RTX 5080 and RTX 5070, and will launch new laptop models equipped with its newest GPUs. GPU thermal solutions have upgraded to vapor chamber (VC; higher ASP) given increasing thermal design power due to stronger computing power. AMD (US) will launch its RX9000 series GPU (RDNA4). We expect new GPU and AAA game launches to hasten a replacement cycle for graphics cards and gaming NB in 2025F, boosting graphics card brands' earnings, especially for Asustek (2357 TT) and MSI (2377 TT), thanks to a higher gaming sales weighting. Auras Technology (3324 TT) will also be a beneficiary given increasing adoption of VC for graphics cards and gaming NB.

**Highlighting new topics AI applications.** There are several hot topics to watch for at CES as regards AI applications in wearables, robotics and space tech. In the future, smart cities, fully automated work, retail, smart agriculture, smart healthcare and smart homes will all require the assistance of AI edge computing devices. According to IMARC Group, the global edge AI market will grow from US\$15.4bn in 2023 to US\$70.9bn in 2032F. Precedence Research also forecasts global edge AI TAM to enjoy a 21% CAGR during 2024-34F, with a hardware value CAGR of 21% and software value CAGR of 16% over the same period. We think these AI applications will garner market attention in: (1) AR, VR, XR and smart glasses may be a focus of the show. In addition to Meta (US), Vuzix (US) and Rayneo (CN) will launch new smart glasses. Taiwan AR/ VR supply chain beneficiaries include Largan (3008 TT) and Genius (3406 TT); (2) robotics. Vendors will exhibit robotics technology and applications in smart manufacturing, retail and drones. Solomon (2359 TT) will exhibit applications based on the Isaac platform and AR solutions; (3) quantum computing. There will be a conference session on quantum computing on January 9. Investor can focus on Google (US), IBM (US) and related ETF is QTUM; (4) space satellites.


#### Stocks for Action

Near term, new product catalysts are gaming GPUs, benefiting Asustek, MSI, Gigabyte (2376 TT) and Auras, while more AR/ VR device debuts will benefit lens makers.

#### Risks

Weak consumer demand; Consumer GPU shortage.

**Figure 1: Three featured themes at CES**

 <p><b>Artificial Intelligence</b></p> <p>Transforming industries. Opening up new capabilities. Enhancing efficiencies. Artificial intelligence is already enhancing our lives in profound ways – and the possibilities for the future are seemingly limitless.</p>	 <p><b>Digital Health</b></p> <p>Explore the latest advancements in AI, IoT, telehealth, and digital health solutions. These groundbreaking technologies are reshaping healthcare delivery, improving patient outcomes, and enhancing operational efficiency.</p>	 <p><b>Vehicle Tech and Advanced Mobility</b></p> <p>From autonomous and connected vehicles to advancements in air transport, technology has transformed the way we experience mobility.</p>
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Source: CES

**Figure 2: Several vendors will hold special events at CES & launch new products**

Vendor	Product expected to showcase	Time (TW)	Time (PT)
Intel	Laptop CPU (Core Ultra 200S/H/HX, Core 200H/200U), motherboard (B810/B860)	00:30 AM, Jan 7	08:30 AM, Jan 6
AMD	Laptop CPU (Kraken Point, Strix Halo), RX9000 GPU, motherboard (B840/B850)	03:00 AM, Jan 7	11:00 AM, Jan 6
Nvidia	GeForce RTX 50 series GPU, robotics	10:30 AM, Jan 7	06:30 PM, Jan 6
<b>Brands</b>			
Asus	ROG gaming laptops, ROG NUC (mini PC), ROG Windows tablet	00:00 AM, Jan 7	08:00 AM, Jan 6
	Copilot+ PCs	01:00 AM, Jan 8	09:00 AM, Jan 7
Samsung	Smart home products and TVs	06:00 AM, Jan 7	14:00 AM, Jan 6
Lenovo	Legion GO S (handheld game console), Dual Screen Rollable NB, Lenovo Yoga (Lunar Lake inside), new tablet lineup		
LG	TVs, monitors, Gram series AI PCs, New Tiun (indoor gardening appliance)		
HP	Gaming NBs		
DELL	Workstation NBs		

Source: CES; Company data; KGI Research

**Figure 3: AR, VR, XR, AI robotics & space tech are new themes to focus on**

<p><b>AR/VR/XR</b></p>  <ul style="list-style-type: none"> <li>• Gaming</li> <li>• AR/VR/XR/MR</li> <li>• Consoles</li> <li>• Wearables</li> <li>• Blockchain &amp; Digital Economy</li> <li>• Web3, Crypto, NFTs</li> <li>• Virtual World Engines</li> <li>• Multiple Access Points</li> <li>• Digital Twin</li> <li>• Haptics</li> <li>• Spatial Sound</li> <li>• Full Sensory Immersion</li> <li>• MaaS</li> </ul>	<p><b>AI robotics</b></p>  <ul style="list-style-type: none"> <li>• GenAI</li> <li>• Humanoid Robotics</li> <li>• Healthcare Robotics</li> <li>• Machine Learning</li> <li>• Automated Workforces</li> <li>• Waste Reducing Intelligence</li> <li>• Machine Manufacturing</li> <li>• Mobile Robotics</li> <li>• Autonomous Learning</li> <li>• Vehicle AI</li> </ul>	<p><b>Space Tech</b></p>  <ul style="list-style-type: none"> <li>• IoT, Remote Sensing, Cloud Solutions, AI and Data Solutions</li> <li>• Industry 4.0, and ICT Software and Hardware</li> <li>• Geospatial Tech, Aerial Imagery</li> <li>• 5G Communications, Satellite Navigation and Communications, Advancements in Antennae, Transmitters and Receivers</li> <li>• Education and Training</li> <li>• Robotics, 3D Printing, Light-Based Manufacturing, Material and Product Supply, Sensors and Automation</li> <li>• Terrestrial Aviation, Satellites, UAVs</li> <li>• GPS Navigation, Weather Monitoring, Satellite Television, Long-Distanced Communications</li> </ul>
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Source: CES; KGI Research

**Figure 4: CES themes & related overseas & Taiwan plays**

Topic	Trends to watch	Related stocks
Gaming	1) Nvidia RTX 50-series & AMD RX 9000 series graphics card	Overseas Nvidia (NVDA US), AMD (AMD US), Lenovo (0992 HK)
	2) Handheld gaming console/ gaming PC	TW ASUS (2357 TT), MSI (2377 TT), Gigabyte (2376 TT), Auras (3324 TT)
Artificial Intelligence	1) AI PC	Overseas Intel (INTC US), AMD (AMD US), Samsung (005930 KS), LG (066570 KS), Micron (MU US), SK Hynix (000660 KS)
	2) HBM4 and next-generation memory solutions	TW ASUS (2357 TT), Acer (2353 TT), EMC (2383 TT), Compeq (2313 TT), Zhen Ding (4958 TT)
Digital Health/ IoT	1) Telemedicine and remote care	Overseas
	2) Wearables for health monitoring	TW AMPAK (6546 TT)
Vehicle Tech and Advanced Mo	1) Software-defined vehicle (SDV)	Overseas Google (GOOGL US), Uber (UBER US), Tesla (TSLA US)
	2) Eco-friendly transportation solutions	TW Delta (2308 TT), Quanta (2382 TT), Pegatron (4938 TT)
AR/VR/XR	1) Smart glasses with built-in displays	Overseas Meta (META US), Snap (SNAP US), Vuzix (VUZI US), Rayneo
	2) Spatial computing	TW Largan (3008 TT), Genius (3406 TT), Jorjin (4980 TT), HTC (2498 TT)
Robotics	1) Humanoid robotics	Overseas Nvidia (NVDA US), Tesla (TSLA US), Amazon (AMZN US), Caterpillar (CAT US), Serve Robotics (SERV US)
	2) Healthcare robotics	TW HIWIN (2049 TT), TBI MOTION (4540 TT), Chieftek (1597 TT), Hiwin Mikrosystem (4576 TT), Apex Dynamics (4583 TT), Khgears (4571 TT), Advantech (2395 TT), Ennoconn (6414 TT), Neosys (6922 TT), Ace Pillar (8374 TT), Solomon (2359 TT), Techman Robot(4585 TT)
Quantum	1) Quantum sensing and communication	Overseas Google (GOOGL US), IBM (IBM US), Defiance Quantum ETF (QTUM US)
	2) Quantum computing applications	TW Hon Hai (2317 TT)
Space Tech/ Satellite	1) LEO satellite-based connectivity	Overseas Amazon (AMZN US), Destiny Tech100 (DXYZ US), Rocket Lab (RKLB US)
	2) IoT & remote sensing	TW Wistron NeWeb (6285 TT), EMC (2383 TT), Compeq (2313 TT), Unitech (2367 TT)

Source: Company data; KGI Research

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