NVIDIA's supply-chain commitments explained: substrates, advanced packaging and why they limit AI hardware

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Short answer: on 17 November 2026 NVIDIA announced expanded long-term commitments with Amkor, Foxconn, Kinsus, Samsung Electro-Mechanics, SPIL and TSMC to add substrate, advanced-packaging, wafer and contract-manufacturing capacity. The headline numbers are Kinsus's plan to expand dedicated advanced substrate capacity by more than 3.5x, and an SPIL expansion that raises dedicated packaging capacity by mid-2029. It matters because substrates and packaging, not only chips, set how many AI accelerators can ship.

TL;DR The short version

- On 17 November 2026 NVIDIA announced long-term commitments with Amkor, Foxconn, Kinsus, Samsung Electro-Mechanics, SPIL and TSMC for substrate, packaging, wafer and manufacturing capacity.
- Substrates and advanced packaging, not only chips, limit how many AI accelerators can ship, and the committed dates run into 2027 to 2029.
- Planned capacity is not output, so treat packaging, power and substrates as constraints and procurement horizons as years.

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What was announced?

According to NVIDIA, new agreements with Kinsus and Samsung Electro-Mechanics add substrate capacity and production capability at existing factories, and its work with Amkor and SPIL expands advanced packaging capacity for current and next-generation accelerated computing platforms. Foxconn is deepening its collaboration across GPU and networking platforms, and TSMC's 5nm, 3nm and CoWoS packaging are used for Vera Rubin NVL72 and Vera CPUs, which began volume shipments in the third quarter.

How the supply chain fits together

- **Substrates:** the package base that connects a chip to the board. Kinsus plans to raise its advanced ABF package substrate capacity dedicated to NVIDIA by more than 3.5x over current levels at its Youth campus in Taoyuan, Taiwan, with production beginning in the second half of 2027 and the added capacity targeted for the third quarter of 2028.

- **Advanced packaging:** joining chips and memory on an interposer. NVIDIA and SPIL are expanding packaging in Taiwan under a multiyear agreement with multibillion-dollar funding from NVIDIA, with new lines for bumping, interposer wafer fabrication, assembly and testing and more contracted capacity by mid-2029.
- **Prepayments:** NVIDIA supports Amkor's advanced packaging in Arizona and South Korea through agreements announced in July and October 2026 totalling nearly $3 billion, including prepayments.
- **Samsung Electro-Mechanics:** an amended multiyear substrate agreement for factories in Sejong and Busan, South Korea.

Context from October

The release says these build on October commitments with Amkor, IBIDEN, King Yuan Electronics, Samsung Electro-Mechanics, SPIL and Unimicron, which it describes as an aggregate 2.5x increase in substrate capacity over three years, a doubling of semiconductor testing capacity from 2026 to 2027, and a 15x increase in SPIL's optical-engine capacity by mid-2027 with another doubling aimed for the end of 2028.

What it signals

- Capacity is committed years ahead: the substrate production dates run to 2027 and 2028 and the packaging expansion to mid-2029. These are company plans, not delivered output.
- Customers prepaying or funding suppliers is a way to secure scarce capacity, and moves some capital risk from suppliers to the buyer.
- Manufacturing is spread across Taiwan, South Korea, the United States and elsewhere, which relates to the policy debates in export controls and the semiconductor investment credit.

Limitations and how to read it

- The source is NVIDIA's own press release, with partner quotes. No independent capacity data, cost or yield figures are given.
- Planned capacity is not output. Delivery depends on construction, equipment and demand, and dates may move.
- The release does not give contract values for most agreements, so the scale beyond "nearly $3 billion" for Amkor and "multibillion-dollar" for SPIL is unknown.

How to use this

1. Treat packaging and substrates as constraints in your capacity planning for accelerators, alongside power and cooling.
2. Track announced dates against delivery, such as second half of 2027 for the first Kinsus capacity.
3. Compare the claims with industry series such as WSTS sales data.
4. Ask cloud providers about capacity commitments, not just instance prices.

What it means for technology planners

Procurement horizons for AI hardware are measured in years. Companies planning on-premises clusters should expect long lead times, and cloud buyers should expect pricing to reflect these constraints. See IEA on power and data centres for the energy side. This is not investment advice.

Frequently asked questions

- **What did NVIDIA announce on 17 November 2026?** Expanded supply-chain commitments with Amkor, Foxconn, Kinsus, Samsung Electro-Mechanics, SPIL and TSMC.
- **What is the Kinsus expansion?** More than 3.5x current dedicated advanced substrate capacity, with production starting in the second half of 2027 and added capacity targeted for Q3 2028.
- **How much is the Amkor agreement?** Agreements announced in July and October 2026 total nearly $3 billion, including prepayments.
- **Why do substrates matter?** They are part of every packaged AI accelerator and can limit shipments.

Related reading

- NVIDIA Q3 fiscal 2027 results
- IEA: electricity demand and data centres
- SIA permitting reform and chip fabs
- Cloud Architecture Practitioner

Sources and currency

Sources were read on 24 November 2026. Products, rules and standards change, so check the linked originals before you rely on any detail. The source is a company press release.

Related credential: Cloud Architecture Practitioner. Explore the exam facts and syllabus.

Sources and further reading

1. NVIDIA. NVIDIA Expands Commitments With Supply Chain Partners to Support AI Infrastructure Buildout. 17 November 2026. nvidianews.nvidia.com/news/nvidia-expands-commitments-with-supply-chain-partners-to-support-ai-infrastructure-buildout.

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