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THE PENINSULA

SK Hynix's Latest CHIPS Act Funding Helps Land HBM Chips in the United States

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The high computing power needed for artificial intelligence (AI) applications is causing increased demand on memory systems used in graphics processing units (GPUs) and data centers. Meeting this demand will require innovative memory solutions. One such innovation, known as [high-bandwidth memory](#) (HBM) forms a core element of the race for AI technology and its demand is expected to [soar](#) as more AI-related systems and architectures come online.

This makes ensuring access to HBM chips critical. Accordingly, the United States is working with its allies to develop robust supply chains for the production of HBM chips. The CHIPS Act, passed in 2022, set aside more than \$52 billion at its outset to help bring advanced chip manufacturing home to the United States and another \$280 billion to support advanced semiconductor research and development (R&D) efforts. Building upon these efforts, the US Department of Commerce on Tuesday [signed](#) a preliminary memorandum of terms (PMT) to award Korean semiconductor producer SK Hynix up to \$450 million in CHIPS Act funding in tandem with an additional pool of \$500 million in proposed loans for HBM R&D and production in the United States.

The funding will be used to support SK Hynix's advanced chip packaging facility in West Lafayette, Indiana, where the company committed [\\$3.87 billion](#) in April, and is set to create more than one thousand jobs. When it comes online in 2028, the facility will

significantly shape the global HBM market. SK Hynix is reported to have over 70 percent of the market share for HBM systems. If you incorporate the latest advancements such as HBM3—the newest iteration amplifying HBM's storage, speed, and power—this brings SK Hynix's share to over 85 percent. Although others are entering the competition, SK Hynix was until recently also the sole supplier of HBM chips for NVIDIA, which controls more than 80 percent of the AI chip market itself. With the cost of making a chip fab reaching into the tens of billions of dollars, this makes funding from efforts like the CHIPS Act an important imperative to reshore supply chains in key technologies to the United States and encourage ample supply of HBM and other innovations to mitigate supply chain bottlenecks.

The West Lafayette award is the latest success in these types of efforts. It showcases how collaboration with foreign economic partners can help secure US economic growth. Plans for economic security are more assured when the United States' leading edge in the competitive global semiconductor market is brought home. As more companies like SK Hynix and Samsung leverage US investments in this area, working with US allies to continue this type of supply chain coordination and reshoring is essential.

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