

## Optical modules and HBM



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We'll examine HBM's critical role in AI accelerator architecture, the impact HBM is having on the DRAM market, and why it is upending the way memory market analysis is being performed.



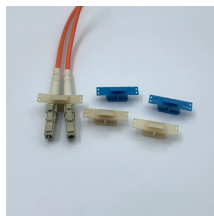
We introduce optically connected multi-stack HBM modules, a separate chip package with multiple HBM stacks and connected to the compute chip via co-packaged optics.



By dis-aggregating the HBM dies, and incorporating the HBM dies into an HBM optics module package, system de-signers gain increased flexibility as to where HBM dies can be located ...



The technology generally relates to high bandwidth memory (HBM) and optical connectivity stacking. Disclosed systems and methods herein allow for 3D-stacking of HBM dies that are...



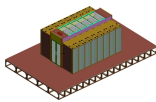
This future seems expensive – there's the need for that interposer, as well as the need for both local logic and HBM to be configured with photonics I/O as well.



By introducing optically connected multi-stack HBM modules, we extend the HBM memory system off the compute chip, significantly increasing the number of HBM stacks.



By co-packaging photonic-electronic interface chips (EIC + PIC) with multiple HBM stacks and connecting them to compute chips via optical fibers, the architecture can scale HBM capacity to ...



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Build a high-density optical interconnect that enables up to 1 Tb/s/mm duplex connectivity to support current gen and next gen scale-up and scale-out optical BW density



“By building optically interconnected HBM modules, it changes the game,” Lazovsky said. “It's potentially 20 percent the cost for the same memory capacity by taking away the need to scale ...



New architectures will be unlocked with CPO ...

## Contact Us

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