

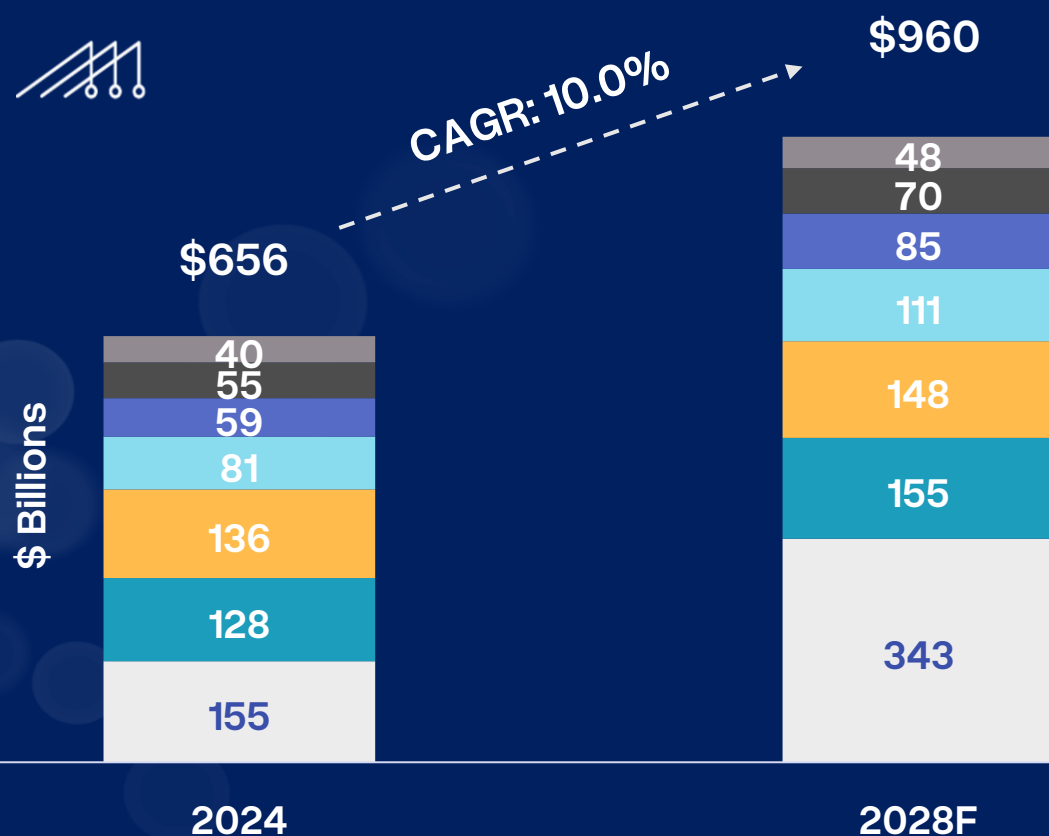
Updated: Gartner's 5-Year Semiconductor Outlook by Application (2024–2028F)

Forecast from June'25

Gartner's Semiconductor Market Forecast by Application

- The overall semiconductor CAGR for 2024–2028 is 10.0% (as of June'25), up from the earlier forecast of 7.1% (Mar'25)
- Growth strengthened across all segments, particularly in Datacenter & Server, but softened in the Industrial segment

2024–28F Semiconductor Revenue



CAGR by Application (vs. Previous Quarter Forecast)

- Communication: +4.5% (vs. 4.0%)
- Consumer: +5.9% (vs. +5.5%)
- Industrial: +9.5% (vs. +10.9%)
- Automotive: +8.2% (vs. +7.7%)
- Mobile Phone: +2.1% (vs. +1.4%)
- PC and Peripherals: +4.8% (vs. +3.5%)
- Datacenter & Server: +21.9% (vs. +13.5%)

Growth Drivers Application

Category	Details
Key Growth Drivers	
Datacenter & Server	AI infrastructure (GPUs, custom chips, HBM [*]) is the fastest-growing semi segment, sustaining strong double-digit growth through 2025–26
Industrial Applications	Industrial automation, robotics, and edge computing are anchoring long-term semiconductor demand beyond consumer cycles
Automotive Demand	EVs, autonomy, and connectivity are boosting chip intensity per vehicle, driving automotive semiconductor market to \$116 B by 2029
Steady Growth Segments	
Communication	Networking, 5G/6G expansion, and data transmission are driving stable, non-cyclical demand for communications chips, reinforcing market resilience
Consumer Electronics	Smart home, gaming, and wearables are bouncing back slowly after a rough patch of oversupply and falling prices
Slower Growth	
PC & Peripherals	Demand remains soft, with growth capped by elongated refresh cycles and post-pandemic normalization
Mobile Phones	Remain a low-growth segment, with demand anchored in replacement cycles rather than innovation

^{*}HBM- High-bandwidth memory



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