Supply Chain Explorer

By the Emerging Technology Observatory

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Logic chip design: Advanced CPUs

Central processing units ("CPUs") are the dominant general purpose logic chips. Two U.S. firms, Intel and AMD, have long held a duopoly over CPUs used for laptops, desktops, and servers. (China has several ventures, though none are competitive with U.S. firms.) CPUs are often classified into "nodes," which represent technology generations: a chip at a new node (e.g., "5 nm," released in 2020) contains approximately double the transistor density as a previous node (e.g., "7 nm," released in 2018) and is also more cost-effective.

Notable supplier companies

- AMD - United States
- Intel - United States
- Loongson (negligible market share) - China (mainland)
- Phytium (negligible market share) - China (mainland)
- Sunway (negligible market share) - China (mainland)
- Zhaoxin (negligible market share) - China (mainland)