

The Companies Behind the Semiconductor Supply Chain

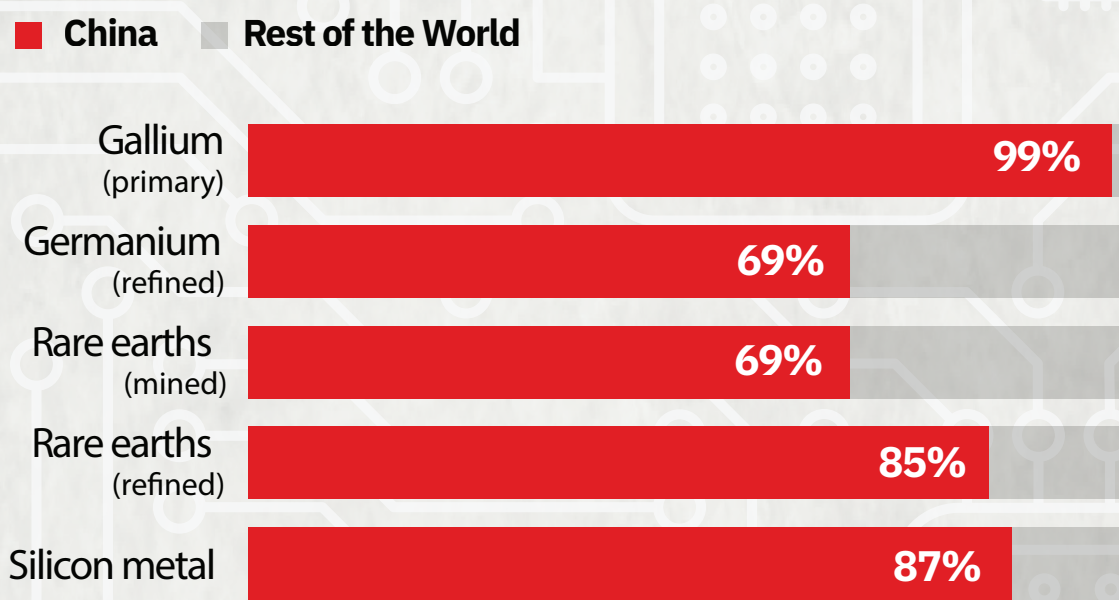
UPDATED SEPTEMBER 2026

Semiconductors, also called microchips or integrated circuits (ICs), power everything from smartphones and cars to data centers and artificial intelligence. Global semiconductor sales reached a record \$791.7 billion in 2025, according to the Semiconductor Industry Association, which projected that annual sales would approach \$1 trillion in 2026. Behind that market is one of the world's most complex and geographically specialized supply chains. This graphic maps leading and strategically important companies across logic, memory and other major chip segments, with particular attention to China's footprint. It is a curated map, not an exhaustive directory.

CHINA LEADS IN RAW MATERIALS...

China holds dominant positions in the production or processing of several materials used in semiconductors and related electronics.

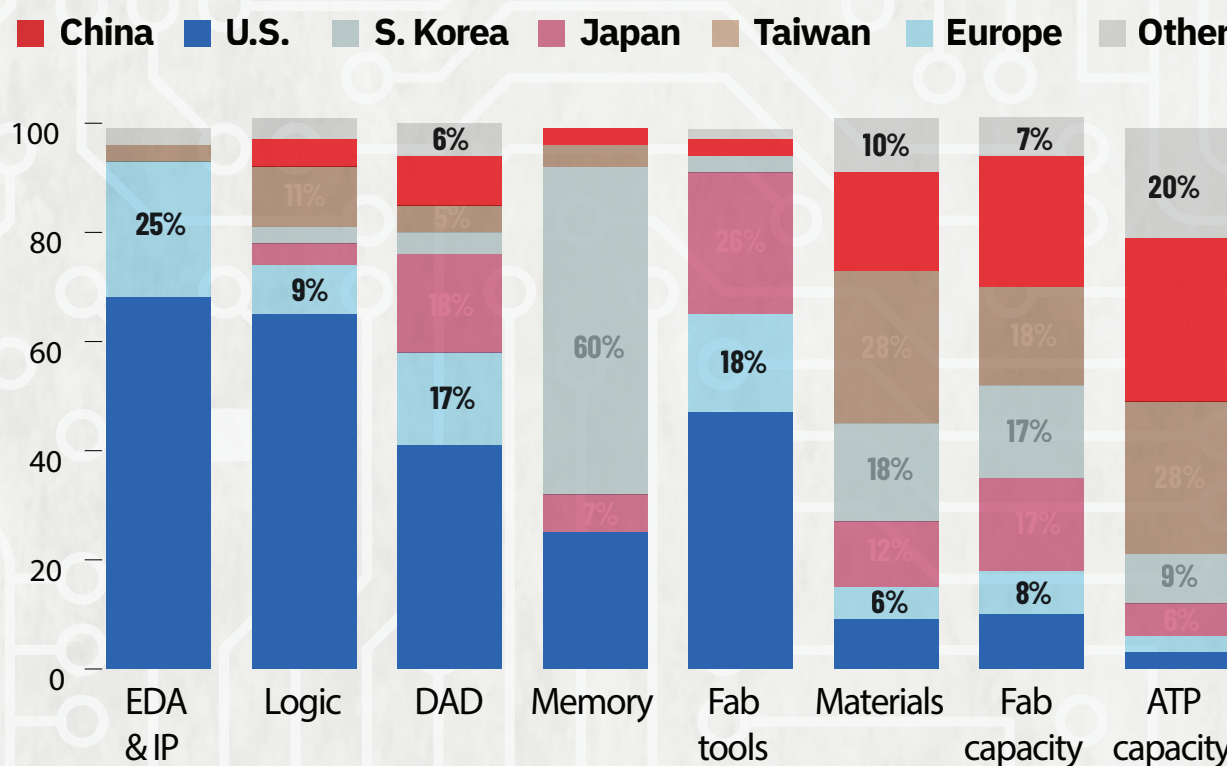
CHINA'S APPROXIMATE SHARE OF GLOBAL OUTPUT, LATEST AVAILABLE ESTIMATES



...BUT LAGS IN VALUE-CREATION

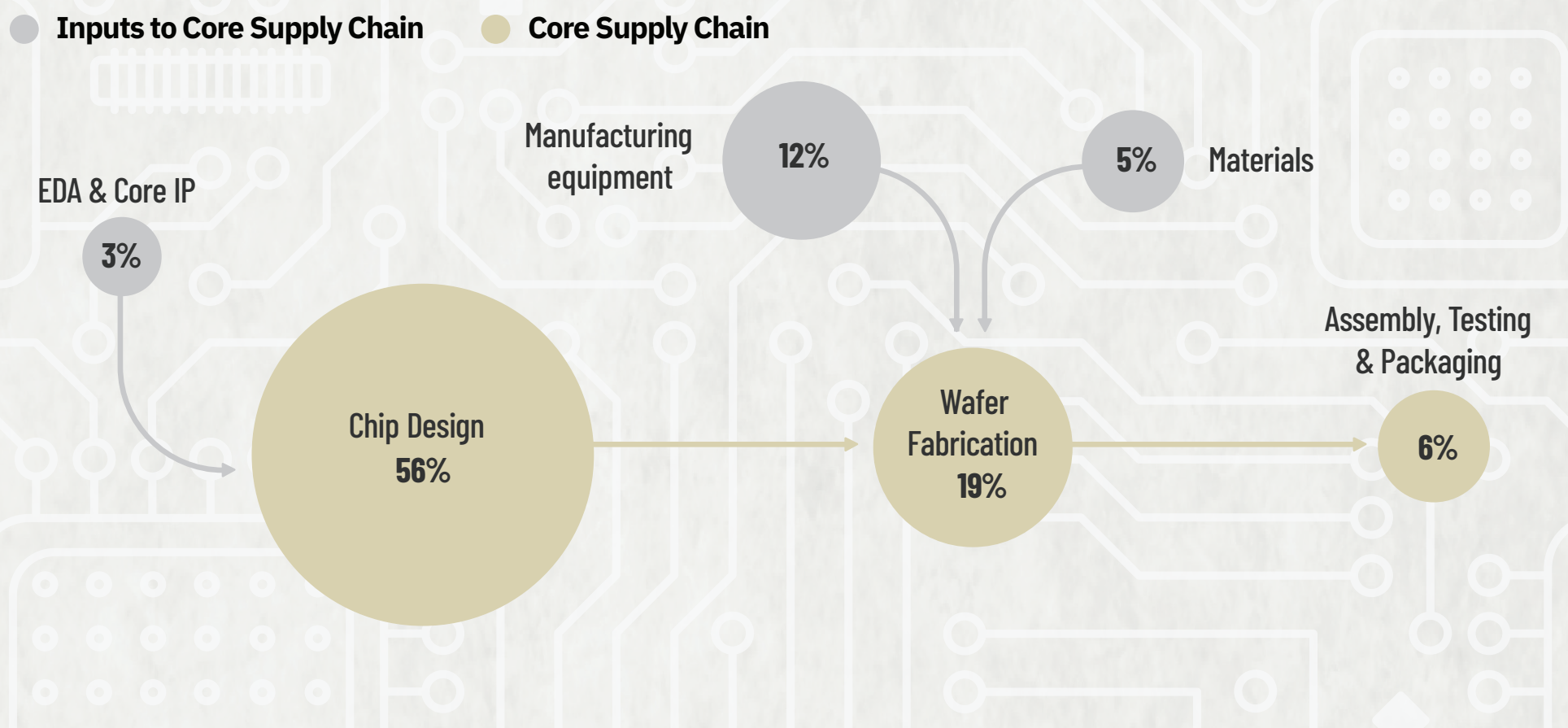
China has made rapid progress, but semiconductor capabilities remain highly specialized by region. Revenue shares are used for headquarters-based segments; installed capacity is used for fabrication and ATP.

REGIONAL SHARE BY SUPPLY-CHAIN ACTIVITY, 2022



FOLLOW THE MONEY

Design captures the largest share of semiconductor value added. The percentages below show each activity's share of total industry value added in 2022; totals may differ slightly from 100% because of rounding.



KEY INPUTS

Feedstock and wafers before any chip is designed.

Producers of ultra-high-purity polysilicon and related feedstock used to grow semiconductor crystals. This is distinct from solar-grade polysilicon.

MAJOR PRODUCERS



CORE SEMICONDUCTOR VALUE CHAIN

From design to finished chips.

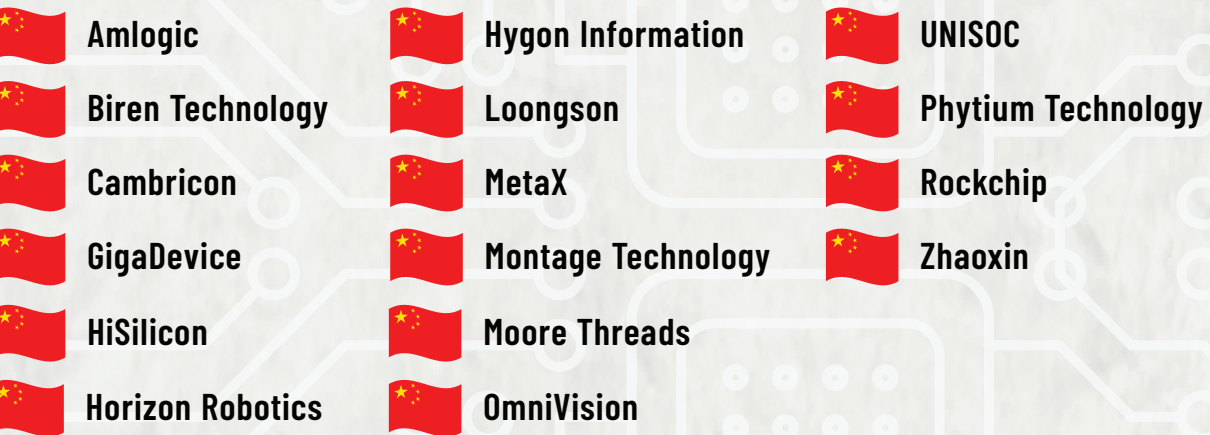
Chip Design

Fabless companies and in-house design organizations that create logic, connectivity, analog and AI chips but generally rely on outside foundries.

MAJOR PRODUCERS



CHINA-BASED PRODUCERS



ENABLING TECHNOLOGIES & MATERIALS

Key suppliers of software, equipment and materials that make chip production possible.

Semiconductor IP (Intellectual Property)

Companies that license processor architectures, interfaces, memories and other reusable design blocks.

MAJOR PRODUCERS



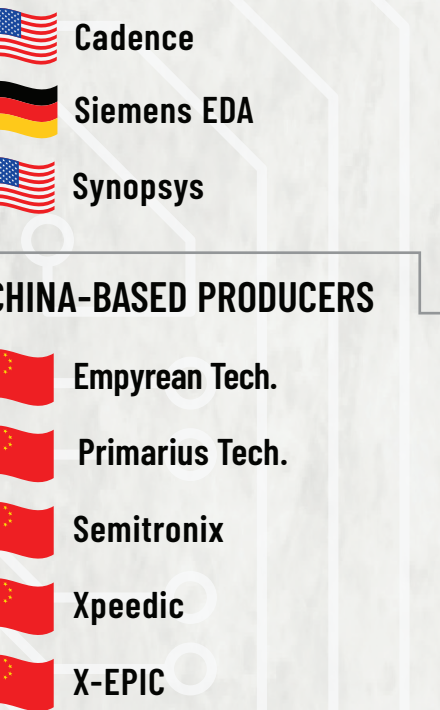
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EDA & Engineering Software

Software used to design, verify and prepare chips for manufacturing. Ansys is now part of Synopsys.

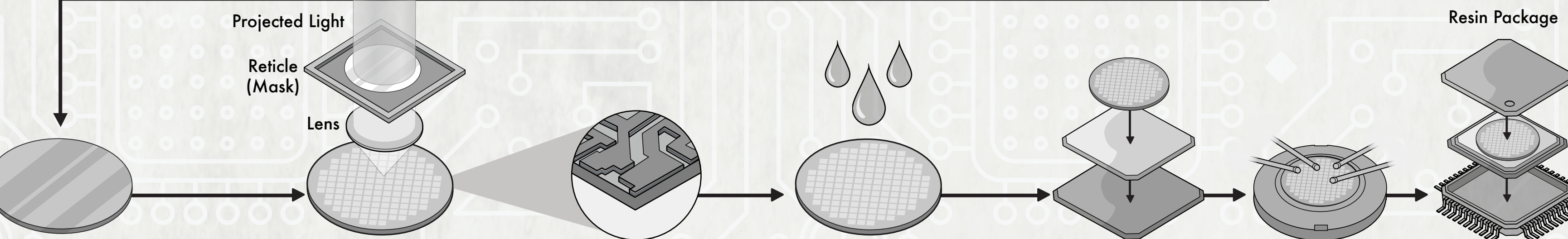
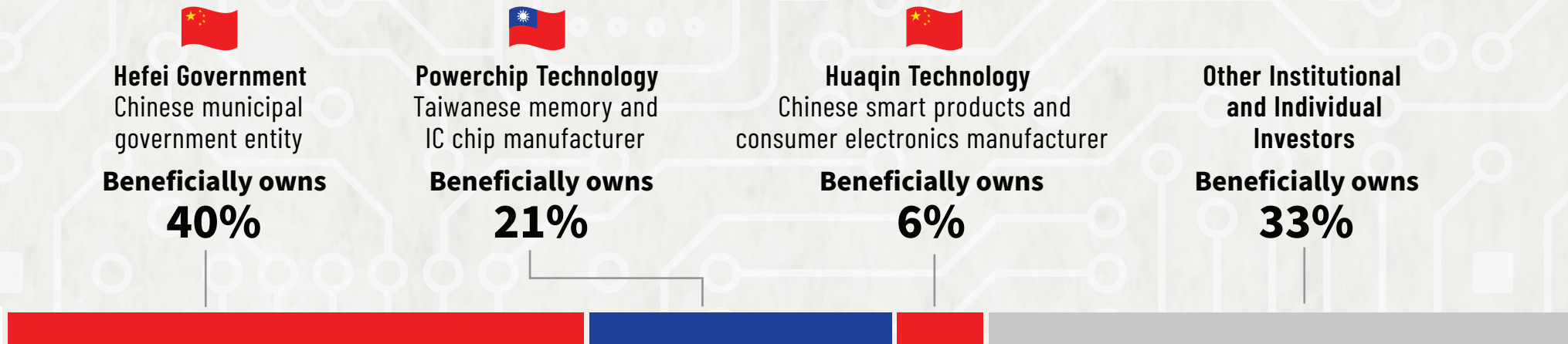
MAJOR PRODUCERS



A Closer Look at Nexchip

Founded in 2015, Nexchip Semiconductor Corporation ("Nexchip") specializes in 12-inch wafer semiconductor production. It is a joint venture between Taiwanese chip-maker Powerchip Technology and a municipal Chinese government entity. In late 2021, Nexchip announced that it had reached a production capacity of 100,000 wafers per month, just under half of China's leading semiconductor foundry, SMIC. In May 2023, Nexchip's IPO raised \$1.67 billion, the largest in Asia-Pacific at the time.

BENEFICIAL OWNERS



Wafer Fabrication

Foundry Services

Pure-play foundries and foundry divisions that fabricate chips designed primarily by external customers.

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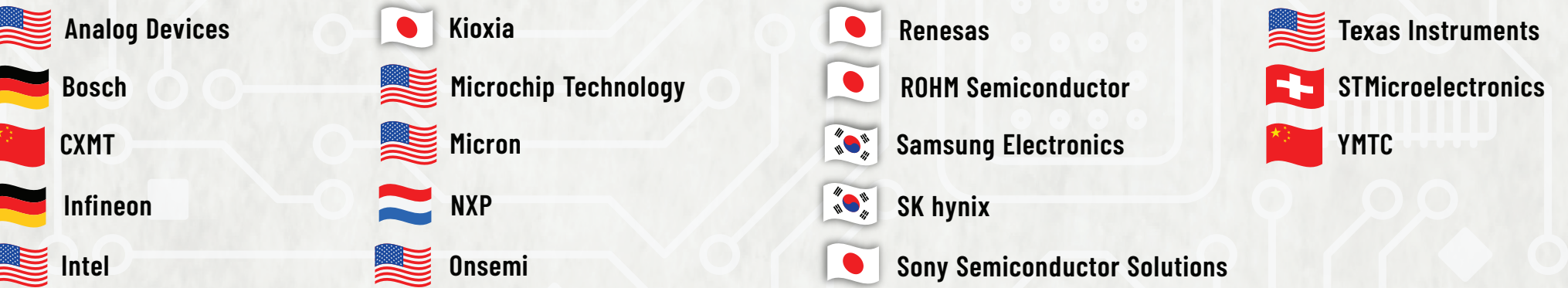
CHINA-BASED PRODUCERS



Integrated Device Manufacturers

IDMs design and manufacture their own chips; some also provide foundry or packaging services. This group should not be conflated with pure-play foundries.

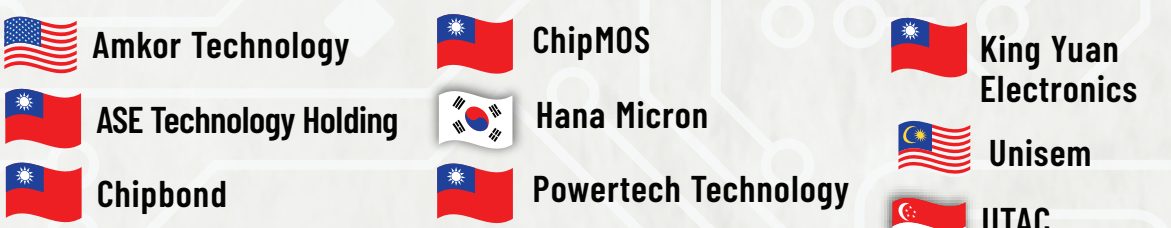
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Outsourced Assembly & Test

OSAT companies package and test chips for fabless companies, foundries and IDMs.

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Integrated Advanced Packaging

Foundries and IDMs with strategically important in-house packaging platforms, including chiplet, 2.5D/3D and high-bandwidth-memory integration.

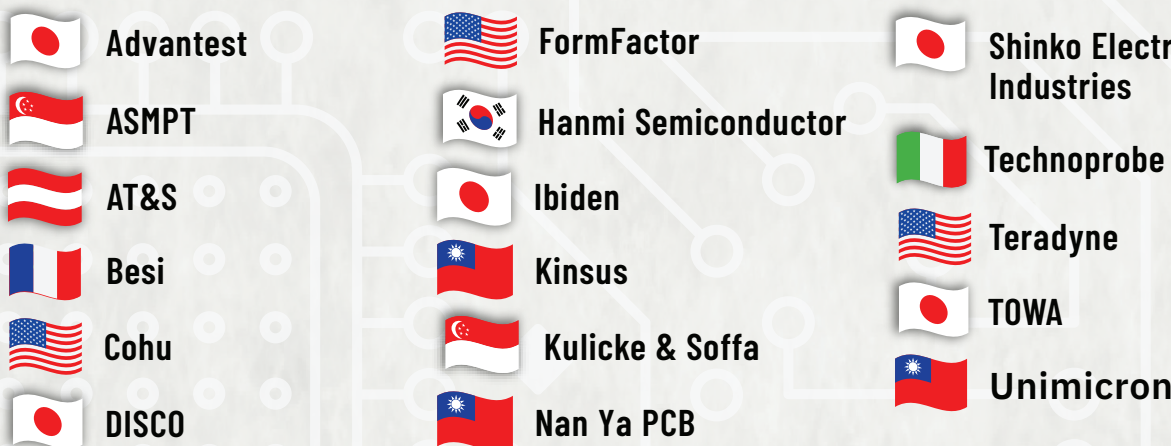
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Packaging & Test Equipment and Substrates

Dicing, bonding, molding, test and inspection systems, plus package substrates used in conventional and advanced packaging.

MAJOR PRODUCERS



CHINA-BASED PRODUCERS



HOW TO READ THIS MAP

This is a curated map of major and strategically important participants, not a complete directory or a league table. Inclusion reflects a combination of market position, technical importance and strategic relevance. "China-based" identifies companies headquartered in mainland China; it does not imply that every company has the same scale or technical capability.

Flags indicate the operating company's principal headquarters, not place of incorporation, manufacturing footprint or ultimate ownership. Foreign ownership is stated in the company label where it is especially relevant. A company may appear in more than one

category when it performs materially different functions. Acquired brands are consolidated under current parents where practical.

Notable ownership exceptions include Finland-headquartered Okmetic, owned by China-based NSIG; UK-headquartered Imagination Technologies, owned by Canyon Bridge; and U.S.-headquartered GlobalFoundries, Mubadala is its largest shareholder. The flag still follows operating headquarters.

Foundries manufacture primarily for external customers. IDMs design and manufacture their own chips. OSATs provide outsourced assembly and test, while some foundries and IDMs operate their own advanced-packaging platforms.