

# Huawei's Tau Scaling Law: A Chip-Design Workaround for the EUV Ban

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The infographic features a dark blue background with a grid pattern and a line graph in the top right corner. The main title is in large white and teal text. Below the title, a subtitle reads 'Time ( $\tau$ ) scaling, not geometric scaling: He Tingbo at IEEE ISCAS 2026'. Three key statistics are presented in separate boxes: '381 Chips shipped under the principle over six years', '1.4nm Target equivalent density by 2031, no EUV needed', and 'Kirin First chip with LogicFolding, launching autumn 2026'. The date 'June 1, 2026' is at the bottom left, and 'ToKnow.ai' is at the bottom right.

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Time ( $\tau$ ) scaling, not geometric scaling: He Tingbo at IEEE ISCAS 2026

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At the [2026 IEEE International Symposium on Circuits and Systems](#) in Shanghai on May 25, Huawei's semiconductor chief He Tingbo unveiled the [Tau \( \$\tau\$ \) Scaling Law](#), a new chip-design principle. Where Moore's Law shrinks transistors, Tau scaling targets the time constant  $\tau$ : how long signals take to propagate through silicon. The core technique is **LogicFolding**, a layout method that rearranges logic blocks to shorten critical-path wiring and cut the resistance

and capacitance slowing signals down. Huawei says it has used the principle to mass-produce 381 chips over six years, that the Kirin chip launching this autumn will be the first to use LogicFolding, and that high-end chips built this way should reach density equivalent to a 1.4-nanometre process by 2031.

ASML's [extreme ultraviolet \(EUV\) lithography machines](#), which the industry uses for sub-7nm process nodes, cannot be sold to China, so a true 1.4nm chip is out of reach conventionally. Tau scaling sidesteps that: match the effective density through circuit layout and architecture instead of smaller features. If it works, Chinese AI accelerators like the Ascend series stay competitive with Nvidia at the leading edge despite the export controls.

Huawei has not published independent performance data, and no third party has verified the 381-chip figure. Density equivalence is not parity on power, yield, or cost. The Kirin launch is the first chance to test whether the principle is the architectural breakthrough Huawei describes or a rebrand of well-known circuit optimisation. Its Ascend accelerators already run [DeepSeek V4](#), so the answer matters well beyond chip insiders.

Sources:

- [Huawei: Tau \( \) Scaling Law announcement \(May 25, 2026\)](#)
- [Global Times: Huawei unveils new semiconductor law](#)
- [TrendForce News: Tau \( \) Scaling Law explained](#)
- [The Next Web: Huawei's workaround for US chip sanctions](#)
- [Tech Wire Asia: Has Huawei just rewritten the rules of chip design?](#)

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