

The MacBook Neo

What This Is A \$599 MACBOOK BUILT ALMOST ENTIRELY FROM PARTS THAT ALREADY EXIST.

THE PRICE

At \$599, this is the cheapest MacBook Apple has ever shipped. It comes in under every current MacBook Air and every current iPad Pro. A full macOS laptop priced like an iPad.

THE CHIP

The Neo is the first Mac with an A-series chip, specifically the A18 Pro from the iPhone 16 Pro. The R&D was amortized years ago across hundreds of millions of phones, and the die is about 25% smaller than an M4.

THE THESIS

Apple built the Neo by removing things: the keyboard backlight, Force Touch, MagSafe, and the hardware camera indicator. What stays (all-day battery, aluminum, the full security stack, a machine you can actually take apart) is what they consider essential to a Mac.

What \$599 Buys Elsewhere THE MOST-RECOMMENDED BUDGET LAPTOPS OF 2026, SIDE BY SIDE.

LAPTOP	PRICE	WHAT YOU GET	THE CATCH VS. NEO
MacBook Neo	\$599	A18 Pro Aluminum 13.0" Retina 8GB / 256GB 2.7 lb ~16h battery	<i>baseline</i>
HP OmniBook 5 14	\$549– \$699	Snapdragon X Plus Aluminum lid + plastic deck 14" 2K OLED touch 16GB / 512GB 2.85 lb ~20h tested	~30% slower single-core · plastic deck · Windows-on-ARM app compat tax
Dell Inspiron 14 5441	\$699– \$799	Snapdragon X Aluminum + plastic surround 14" 2.2K IPS 16GB / 512GB 3.4 lb ~10.5h tested	\$100–200 more · ~35% slower single-core · 3.4 lb · ~5h less battery · plastic display surround
Acer Aspire 14 AI	\$649– \$750	Core Ultra 5 226V Aluminum 14" FHD+ IPS 16GB / 512GB 3.2 lb ~14h tested	\$50–150 more · ~25% slower single-core · 3.2 lb · ~2h less battery
Lenovo IdeaPad Slim 5 (16")	\$429– \$649	Ryzen AI 5 340 Aluminum top + plastic bottom 16" FHD+ touch IPS 16GB / 512GB 3.9 lb	16-inch class · 3.9 lb (1.2 lb heavier) · ~30% slower single-core · plastic bottom

Three of the four "best budget Windows laptops" of 2026 sit at or above \$700 to compete with what Apple did at \$599. The Windows side wins on RAM (16GB vs 8GB) and storage (512GB vs 256GB) on every row, and most have a touchscreen or OLED panel — but those wins come with the catches above. [Tom's Guide's 2026 budget shortlist](#) already lists the Neo alongside these.

The Chip **IPHONE SILICON, BOUGHT AND PAID FOR HUNDREDS OF MILLIONS OF TIMES.**

CHIP	SINGLE	MULTI	VS. NEO
A18 Pro (Neo)	3,461	8,668	--
M1 (Air, 2020)	2,323	8,187	-33% / -6%
M4 (Air, 2025)	3,700	14,750	+7% / +70%

Single-core is what you feel — web, apps, typing. Multi-core is what you wait for — exports, compiles, AI models.

CHIP	DIE SIZE	CHIPS / WAFER
A18 Pro (Neo)	~105 mm²	~600+
M4 (Air)	~140 mm ²	~440
M4 Max (Pro 16")	~440 mm ²	~130

Approximate values. TSMC 3nm (N3E) on 300mm wafers.

The A18 Pro and M4 belong to the same family of chip. They share performance cores, efficiency cores, and the ARMv9.2-A instruction set. M4 simply has more of everything: 10 CPU cores instead of 6, double the GPU cores, and wider memory bandwidth.

The Neo's A18 Pro has a 6-core CPU (2 performance plus 4 efficiency), a 5-core GPU, and a 16-core Neural Engine. The GPU has one fewer core than the iPhone 16 Pro version, which suggests these are binned chips.

For the things most laptops do most of the time, like web browsing, documents, streaming, photo editing, and Apple Intelligence, single-core speed is what you actually notice. The Neo is close to M4 there.

Apple didn't design a new chip for the Neo. They reused iPhone silicon that was already in production in enormous volume, which meant no new R&D to recoup.

The A18 Pro die is about 25% smaller than an M4. That yields roughly 35% more chips per wafer, with better yields on top of that. And dies with a bad GPU core don't get scrapped; they get binned down to the 5-core version. Those are probably the ones going into the Neo.

Analyst [Tim Culpan](#) reports that Apple originally planned on 5 to 6 million units from binned dies. The Neo sold fast enough that Apple is reportedly running short of binned dies to build more. Tim Cook called it "the best launch week ever for first-time Mac customers."

The Two Ports **TWO USB-C PORTS THAT AREN'T THE SAME, AND ONE 3.5MM JACK THAT SURVIVED.**

Left USB-C — The Overachiever (USB 3 · 10 Gbps)
DisplayPort 1.4 · One external display at 4K 60Hz · Fast data transfer · Charging

Right USB-C — The Sidekick (USB 2 · 480 Mbps)
Charging · Peripherals · Slow data only · No display output

3.5mm Headphone Jack — The Survivor
Standard wired audio out · no high-impedance amp

The A18 Pro was designed for an iPhone, which has one USB-C port. Getting a second port out of it was, Apple told [Gruber](#), "a significant engineering achievement." That second port runs at USB 2, roughly twenty times slower than the first.

The two ports look identical, but they aren't. Plug a display into the slow one and macOS will show an alert telling you to use the other one. It doesn't silently fail. That's software filling in for a hardware constraint.

There's no MagSafe, so charging uses one of the two ports. The easy arrangement is to charge on the right and keep the left free for data or a display. A 30W charger also fills the battery about **35% faster than the 20W adapter in the box**.

The cable in the box is USB 2 at 480 Mb/s, while the left port can actually do 10 Gb/s. That's the same pattern as [the 20W charger](#): Apple ships what's sufficient, not what the hardware can do. If you want the fast port to run fast, you'll need to buy your own cable.

Neither port supports Thunderbolt. The practical loss is single-cable docking, the kind of setup where one cable carries power, a display, and peripherals all at once. You can still build a desk around the Neo with a charger on one port and a display on the other, but then both ports are occupied. Anyone who actually needs one-cable docking should look at the Air.

The Spec Sheet THE PART WORTH READING BEFORE YOU BUY.

SPEC	MACBOOK NEO	CONTEXT
Display	13.0" Liquid Retina · 2408 x 1506 · 219 ppi · 500 nits	sRGB (no P3 gamut) · no True Tone · 60Hz (no ProMotion). Not suitable for color-critical design or photography.
External Display	One display, 4K at 60Hz	Left port only. One external + the built-in screen. DisplayLink workarounds exist for a second external, but no Thunderbolt dock support.
Camera	1080p FaceTime HD	No Center Stage, no Desk View, and no hardware LED. The indicator is a green dot in the menu bar instead. If video calls are a significant part of your work, the missing Center Stage and Desk View are worth knowing about. (More below.)
Weight	2.7 lbs (1.24 kg)	Same as MacBook Air 13". Slightly thicker (0.50" vs 0.44").
Battery	36.5 Wh · up to 16h video / 11h web	32% smaller than the Air's 53.8 Wh, but battery life is comparable. The A18 Pro was designed for a phone with about a 16 Wh battery, so giving it more than twice that is easy work. Fewer cells also means less lithium, less weight, and less cost.
Charging	USB-C · ships with 20W adapter · max ~30W	0–50% in about 1h 25m with the stock 20W adapter, or about 55m with a 30W. No MagSafe. (I wrote a guide about this.)
Wireless	Wi-Fi 6E · Bluetooth 6	New across the March 2026 Mac lineup — Air M5 and Pro M5 Pro/Max also ship with BT 6.
Colors	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="background-color: #c0c0c0; padding: 5px; border: 1px solid #ccc; text-align: center;"> Silver The professional. </div> <div style="background-color: #e08080; padding: 5px; border: 1px solid #ccc; text-align: center;"> Blush The confident one. </div> <div style="background-color: #4b4b9b; padding: 5px; border: 1px solid #ccc; text-align: center;"> Indigo The statement. </div> <div style="background-color: #f0e04b; padding: 5px; border: 1px solid #ccc; text-align: center;"> Citrus The conversation starter. </div> </div> <p>First MacBook in real colors rather than metallic neutrals. All four extend to the keyboard.</p>	
Materials	Recycled aluminum enclosure	60% recycled content by weight. Binned silicon plus recycled aluminum is the full reuse story. The aluminum itself is also the reason the Neo doesn't feel like a \$599 laptop; everything else at this price is plastic.

What Got Cut THE CUTS AND ROUGHLY WHAT EACH ONE SAVED.

WHAT GOT CUT	~SAVED	WHAT GOT KEPT
M4 chip → A18 Pro	\$10–15	The \$599 price — the entire premise. (See above.)
Force Touch → mechanical trackpad	\$5–15	A click that works even when powered off. First mechanical trackpad since 2015.
Display P3 / True Tone	\$5–15	A Retina display that's still 500 nits. Fine for 90% of people.
Touch ID (base model)	\$5–15	\$100 in your pocket. Or spend it — \$699 gives it back with double the storage.
MagSafe connector	\$3–8	A second USB-C port. MagSafe would've used that space.
Keyboard backlight	\$1–3	White keys you can read without it. First MacBook without a backlight since 2011.
High-impedance headphone amp	\$1–3	Standard 3.5mm output. The Air and Pro auto-detect impedance and bump to 3V for high-impedance cans; the Neo holds at 1.25V. Audible only on 150–600Ω studio headphones.
Camera LED → exclave	<\$1	Security that's <i>stronger</i> than the hardware it replaced. (See below.)

Estimated per-unit savings: \$30–72. Nothing on the list is dramatic on its own; the savings come from adding them up.

The cost numbers are rough, pulled from industry teardowns rather than Apple data. ([Sources.](#)) One choice worth noting: the Neo ships with a 20W charger even though it accepts up to 30W — see [the charging guide](#).

The Camera A SOFTWARE CAMERA INDICATOR RUNNING ON IPHONE SECURITY ARCHITECTURE.

WHAT YOU EXPECT	WHAT THE NEO DOES
Hardware LED next to camera	On-screen green dot in menu bar
Hardwired to camera power	Drawn by the secure enclave
Can't be overridden by software	Can't be overridden by software

"Even a kernel-level exploit can't turn on the camera without the indicator appearing."

Removing the hardware camera LED wasn't really about saving money. Apple replaced it with a security model that's new to the Mac but has been on iPhones for years. The green indicator in the menu bar is drawn by a *secure enclave*, a small isolated realtime operating system running on the A18 Pro. The enclave exposes only a strictly limited API into macOS.

The enclave is a different subsystem from the Secure Enclave. It draws the green dot directly onto the display at a privilege level that no application, no system process, and not even kernel-level code can suppress.

iPhones have worked this way since the original. The same enclave architecture protects the iPhone camera, which has never had a hardware LED. The Neo is the first Mac to inherit the approach.

Gruber's take is that the software indicator is, by any meaningful measure, as trustworthy as the hardware light it replaced. The theoretical attack path would require compromising the enclave itself, which has almost no attack surface to begin with.

Repairability THE MOST REPAIRABLE MACBOOK IN FOURTEEN YEARS.

BATTERY Eighteen screws hold the battery tray. There are no adhesive pull tabs, so no chance of puncturing the cell, and it's the first MacBook battery this easy to service in fourteen years.	USB-C PORTS The ports are their own board, not soldered to the logic board. A damaged port costs about \$20 to swap instead of requiring a \$300 logic-board replacement.	KEYBOARD Individual key mechanisms can be replaced, and the mechanical trackpad is its own module as well.	NO PARTS PAIRING Replacement parts aren't serialized to the logic board, so third-party repair shops can source components freely. That's a real break from recent Apple practice.
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iFixit gave it a 6/10, the highest score for any MacBook since 2012. The exceptions: RAM is part of the A18 Pro package, and the SSD is soldered to the logic board, so neither is upgradeable. Everything else unscrews. iFixit's teardown found zero adhesive tape in the whole machine, which is a first for a modern Mac.

The 8GB Question THE ONE SPEC YOU CAN'T REUSE YOUR WAY OUT OF.

TASK	8GB VERDICT
Web browsing (20+ tabs)	Slaps
Documents / email	Slaps
Photo editing	Slaps
Apple Intelligence (on-device)	Slaps
Light video editing	Sweats
Large Xcode projects	The Wall
Local AI / LLMs	The Wall
Pro audio / 50+ tracks	The Wall

The A18 Pro was designed for iPhone 16 Pro, which ships with 8GB of unified memory. That's baked into the chip package. There is no 12GB or 16GB option at purchase, and there's no way to upgrade later.

Unified memory helps more than the raw number suggests. Unlike a PC, where the CPU and GPU each have their own memory pool, every process on the Neo can draw from the full 8GB. macOS also swaps idle data out to the SSD fairly aggressively. In practice, 8GB on a Mac doesn't feel the way 8GB on a Windows laptop does.

The wall is still real, though. Video export, large code compiles, running a local LLM, or having too many heavy apps open at once will all push the machine into swap, and you will notice.

RAM and storage are both soldered, so whatever you buy is what you have for the life of the machine. If you suspect you'll want more than 8GB, buy an Air instead.

Who This Is For AND WHO IT ISN'T FOR.

\$599

8GB unified memory · 256GB SSD · No Touch ID · 20W charger · All four colors

\$699 — THE ONE

8GB unified memory · **512GB SSD** · **Touch ID** · 20W charger · All four colors

Education: \$499 / \$599

\$599 is what makes the headlines; \$699 is the one worth buying. The extra hundred dollars gets you Touch ID and double the storage.

BUILT FOR

Students. Better than any \$600 PC, and education pricing drops the \$599 model to \$499.

First-time Mac buyers. The lowest price of entry Apple has ever offered.

Web-and-tabs users. The A18 Pro's single-core speed handles this without complaint.

Kitchen-table families. Durable, colorful, and the two-config choice keeps things simple.

The couch-and-carry crowd. A light machine for travel, the couch, and the coffee shop.

Right-to-repair believers. Screws instead of glue, modular ports, and no parts pairing.

NOT BUILT FOR

Video editors. 8GB memory and limited multi-core cores are the constraint; only one external display.

People who compile for a living. Large compiles will push into swap, and 256/512GB fills up fast.

Anyone doing color-critical work. No P3 gamut and no True Tone.

Desk maximalists. One external display maximum, no Thunderbolt docking.

Heavy multitaskers. If you never close apps, 8GB is going to be your constant ceiling.

Anyone who types in the dark. There is no keyboard backlight.

The Bottom Line BUILT ALMOST ENTIRELY FROM THINGS THAT ALREADY EXISTED.

2008 · STEVE JOBS

"We don't know how to make a \$500 computer that's not a piece of junk, and our DNA will not let us ship that."

2026 · JOHN TERNUS

"We never wanna ship junk, right? We wanna ship great products."

Eighteen years apart, the same principle produced a different answer — built layer by layer from parts Apple already had.

LAYER	WHAT SHIPS	THE DNA
Chip	A18 Pro	iPhone 16 Pro silicon. R&D paid for by hundreds of millions of phones.
Dies	5-core GPU (one core disabled)	Binned chips that would otherwise have been scrapped.
Enclosure	90% recycled aluminum	Apple's recycling stream.
Battery	100% recycled cobalt · 95% recycled lithium	Apple's recycling stream.
Security	Exclave architecture	Built for iPhone. Rides along on the A18 Pro for free.
Repair	Screws · no parts pairing · modular ports	An engineering choice that makes all of the above last longer.

The \$599 price is a byproduct of the table above. You cannot buy a \$600 PC laptop that competes on any axis.

HOW THIS WAS BUILT

Designed and researched by Rands. Built and fact-checked by Grumbles.

Specs from Apple and iFixit. Benchmarks from Geekbench 6. Receipts. · v2.0 · April 2026

