

Samsung launches Galaxy Book Flex 5G, the first 5G Intel Evo laptop

It's a big day for Intel. The company launched its 11th Gen Tiger Lake mobile processors. It also announced its newest badge of honor for laptops: the Intel Evo brand, building on last year's Project Athena program. And in tandem with Samsung, it unveiled the first 5G-enabled system to meet the Evo requirements: the Galaxy Book Flex 5G.

The Flex 5G is Samsung's first 5G laptop, and it certainly looks nice. It weighs 2.7 pounds (1.26kg) and comes in a light "royal silver" finish. You can configure it with a 13.3-inch 1920 x 1080 display, up to 16GB RAM, a 69.7Wh battery, and up to a 512GB SSD. There's a 13-megapixel "world-facing" camera to snap or shoot video on the go, a built-in S Pen, and a backlit keyboard.

But the most exciting feature – in addition to 5G – is the processor.

The Flex 5G can come with either a Core i5 or Core i7 from Intel's new Tiger Lake lineup. The new chips will bring unprecedented performance and power efficiency to thin-and-light systems like the Flex 5G, says Chris Walker, Intel vice president and general manager of mobile client platforms.

"As a 5G Intel-based platform, you really aren't compromising on battery life, wireless connectivity, CPU performance, compatibility in the Windows ecosystem – they really are able to bring everybody's wish list together," say Walker in an interview with *The Verge*.

Intel's Evo program also has stricter requirements than Project Athena's. For one, candidates need to include Tiger

Lake processors (Project Athena only certified 10th Gen systems). Walker also says that the performance bar is higher and includes more use cases.

Systems will need to last nine or more hours on a “real-world” battery test, which includes Chrome, G Suite, Microsoft Office 365, YouTube, and Zoom use. They’ll also need to be able to wake from sleep in less than a second and support fast charging (up to a four-hour charge in under 30 minutes if they have an FHD display) as well as Wi-Fi 6 and Intel’s new Thunderbolt 4 standard.

“That’s all really intensive lab work – that’s not a specification where you check off some boxes, then you get it,” Walker says. “The systems come in, they’re tested and tuned over multiple runs and trials.”

In all, Intel says that it’s trying to differentiate the laptops that best serve everyday use cases (rather than excelling on synthetic benchmarks). By granting the Flex 5G the Evo label, Intel is certifying that the system does that well.

Samsung and Intel say the Flex is targeting a base of mobile workers – students, remote employees, and “go-getters,” per Walker. Walker says that Intel spent “thousands of hours” asking those users what they needed most out of their laptops. One priority was quick boot time and responsiveness to help people maintain focus as they move between devices and tabs. Others were all-day battery life and a clean desk. “They want one plug that can power multiple monitors. They want docks, keyboard, mouse, and power delivery all in one simple cable.” That’s where Thunderbolt 4 comes in, Walker says: “It simplifies that whole flow for people.”

MC Lee, Samsung VP of new computing sales and marketing, says 5G connectivity has also become more important to these consumers amid COVID-19. “When we began designing Galaxy Book

Flex 5G, we were preparing to embrace an always-connected world – but we had no idea how quickly the world would change, and how staying connected with colleagues, friends and loved ones would become even more important,” Lee says. “We believe that consumers will continue to prioritize these experiences in the ‘next normal.’”

While this is an early foray into 5G for Intel, it won’t be the last. “You’ll see many more 5G systems with Intel partners starting next year,” says Walker, though he declined to provide specifics.

And it’s easy to see why a 5G laptop makes sense for Intel and Samsung. While it still takes some effort to find a fast and consistent connection in many areas of the US (as we learned in testing Lenovo’s Flex 5G last month), it’s more available in some other countries, and better service is coming. And though the US tech industry’s revenue is set to decline by 2.2 percent this year, according to a recent Consumer Technology Association forecast, 5G smartphones are expected to generate \$11 billion in revenue (a 665 percent increase from last year).

Lee expects consumers to treat 5G purchases as an investment. “5G will become a key connection to the world,” says Lee. “Users will get to experience 5G connectivity whether it’s available in their region now or in six months.”



Image: Samsung

But all eyes are on Intel's processors because the manufacturer's competition has never been steeper. Lenovo's Flex 5G, the first 5G laptop to hit shelves, launched with an ARM-based processor. Samsung's Galaxy Book S also launched with an ARM chip earlier this year, and it both performed well and delivered stupendous battery results. Apple is also switching away from Intel to ARM-based Macs over the next two years, and (like Intel) it's promising better performance and lower power consumption.

Meanwhile, AMD's Ryzen 4000 series has left Intel in the dust this year. From ultraportables like HP's Envy x360 and Lenovo's IdeaPad Slim 7 to gaming rigs like Asus' Zephyrus G14 and Dell's G5 15 SE, AMD has been offering six-core and eight-core chips with better battery life and better prices than comparable Intel systems. Tiger Lake tops out at four cores, at least for this initial launch.

Walker argues that while Tiger Lake systems like the Flex 5G may lose in synthetic benchmarks, they will win in real-world

use cases. “Core count has nothing to do with the performance in the applications you use every day in the real world,” he says. “I’m going to show that people will experience productivity, content creation, gaming, all far superior on the four-core Tiger Lake processor. Core count is not a proxy for performance. It’s a proxy for Cinebench performance, but not in real life. Not in the real world.”

Of course, the proof is in the pudding – and Samsung hasn’t announced pricing or availability for the Flex 5G yet.

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