

PARTNER:
SIMPLY NUC

INDUSTRY:
MINI PCs

**AMD TECHNOLOGY
AT A GLANCE:**

– AMD RYZEN™ EMBEDDED SoCs



CASE STUDY



Simply NUC Pioneers a New Class of Commercial and Industrial-Grade Mini PCs with Help from AMD Ryzen™ Embedded SoCs

CHALLENGE:

Simply NUC sought to extend its significant success in the consumer Mini PC market onward to commercial and industrial applications, where long-lifecycle product support and supply longevity are critical factors.

SOLUTION:

AMD Ryzen™ Embedded SoCs enabled Simply NUC to develop a 'Long-Life Mini' product portfolio that its customers in the embedded computing domain can count on for up to seven years. Customers also benefit from AMD Radeon™ - caliber graphics performance and advanced multi-display flexibility.

RESULTS:

AMD is helping Simply NUC scale its product portfolio to new heights with pin-compatible AMD Ryzen™ Embedded R1000 and V1000 SoCs, while benefitting from an open ecosystem of AMD-based motherboards and complementary components.

AMD's long-lifecycle embedded processor enables Simply NUC to penetrate new markets while offering excellent graphics and multi-display capabilities

The Mini PC market has shown tremendous promise since its inception, fueled by growing awareness for the many advantages Mini PCs provide compared to bulky tower PC platforms. Featuring a dramatically smaller form factor and extreme computing versatility – with little to no compromises in functionality, performance and/or power efficiency – Mini PCs are poised for wide adoption across a host of target applications. When customers hold these ultra-compact, half liter-sized devices in the palms of their hands, the choice between Mini PCs and tower PCs is an easy one to make.

The founders of Simply NUC (www.simplynuc.com) were among the first to recognize the tremendous market opportunity for Mini PCs and has emerged as one of the leading Mini PC providers in the United States and Europe, achieving a staggering 476% revenue growth rate in a span of just two years . Simply NUC was also among the first Mini PC providers to look beyond the consumer market where Mini PCs gained their initial traction, sensing the strong potential for Mini PC adoption in embedded applications including digital signage, enterprise collaboration and conferencing, edge computing, industrial and far beyond.



To effectively penetrate these markets, however, Simply NUC would need to ensure longer product support lifecycles than what's typically needed for consumer-grade Mini PCs. A two to three-year lifecycle simply isn't enough for customers in commercial and industrial domains looking to avoid frequent, expensive qualification cycles. These customers need assurances that they can deploy Mini PCs for long periods of time, and in many cases, in harsh environmental conditions where wear and tear would compromise a consumer-grade device.

AMD ADVANTAGES

To extend the support and supply longevity of its Mini PC portfolio for commercial and industrial applications, Simply NUC embraced the opportunity to expand its supplier ecosystem. As such, the newest additions to Simply NUC's Mini PC portfolio – encompassing its Long-Life Mini (LLM) product line – feature AMD Embedded SoCs within. For this market segment, AMD offers industry-leading planned product availability up to ten years via its AMD Ryzen™ Embedded SoCs – a far longer projection than what Simply NUC could find elsewhere from its other processor partners. This initiative also liberated Simply NUC to leverage a broad ecosystem of AMD-based motherboards and other qualified supporting components to enable greater ease of development and customization.

For its AMD-based Mini PC family – featuring the Evergreen, Oak, and Sequoia product offerings – Simply NUC has committed to supporting the manufacture and sales of these devices in the same form, fit, and function for seven years from launch. This is a significant achievement in its own right, but AMD-enabled benefits don't stop there.

With AMD Ryzen™ Embedded SoCs, Simply NUC's design team can take advantage of a wide range of power/performance profiles and AMD Radeon™ -caliber, 4K graphics performance that are very compelling. AMD Ryzen™ Embedded SoCs also expand Simply NUC's ability to support multi-display graphics – an especially

important feature for digital signage and enterprise collaboration and conferencing applications. Leveraging AMD Ryzen™ R1000 and V1000 Embedded SoCs, Simply NUC's designers are equipped to scale multi-display support between three and four displays, while simultaneously taking advantage of AMD's Eyefinity technology to enable a single multimedia feed to be displayed across a multi-panel video wall.

The common footprint and pin compatibility shared by AMD Ryzen™ Embedded R1000 and V1000 SoCs has also enabled Simply NUC with a highly scalable processing platform that today supports up to six different Simply NUC Mini PC product SKUs – with wide flexibility to expand its AMD-based offerings into the future to meet evolving customer requirements. This has helped to enable numerous design consistencies among Simply NUC's AMD-based product portfolio, which in turn has equipped them to develop a 'universal chassis' that can be employed for current and future devices. With a common exterior design aesthetic, Simply NUC can further differentiate the look and feel of its product offerings within the market, while leveraging a wide range of aftermarket 'lids' that Simply NUC's designers can use to easily swap in/swap out I/O ports to meet its customers unique connectivity and peripheral needs.

PORTFOLIO SCALABILITY

At the entry level, Simply NUC's Evergreen Mini PC provides an affordable platform that supports a wide power supply range (12 to 19Vdc), and offers a gigabit Ethernet port, and four USB ports for I/O flexibility. Equipped with two HDMI™ ports, Evergreen is ideal for entry-level digital signage applications.

Simply NUC's Oak Mini PCs – available in Post Oak and Red Oak variants – address the midrange of the Mini PC market, offering both feature-rich and cost-optimized performance options. Oak Mini PCs are ideally suited for digital signage, electronic kiosks, edge computers, and other free-standing utilities.



Rounding out Simply NUC's AMD-based Mini PC portfolio, its Sequoia family is ruggedized for harsh environmental conditions, withstanding up to 95% relative humidity and temperatures upwards of 60 °C. It also supports an automotive-grade power supply range (8V to 32V), with customizable small form factor packaging.

Delivering all the power without the tower, Simply NUC's growing portfolio of AMD-based Mini PCs has helped to expand its market horizons to encompass commercial and industrial applications where long-lifecycle product support and supply longevity are critical. The scalability of the AMD's Ryzen™ Embedded SoC portfolio will play a key role in Simply NUC's product line evolution going forward, while enabling Simply NUC's design team to take advantage of a wide range of power/performance profiles, with AMD Radeon™-caliber graphics performance and advanced multi-display flexibility.



ABOUT SIMPLY NUC

Formed in 2015 and headquartered in Round Rock, Texas, Simply NUC®, Inc. specializes in mini computer platforms. Simply NUC provides fully configured, warrantied, and supported systems to businesses, schools, factories, and consumers; as well as end-to-end project development, custom operating system installations, and mini PC accessories. For information about Simply NUC please visit www.simplynuc.com

ABOUT AMD

For more than 45 years AMD has driven innovation in high-performance computing, graphics and visualization technologies – the building blocks for gaming, immersive platforms and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work and play. AMD employees around the world are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit www.AMD.com

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