



Viking Enterprise Solutions cut down lead time and develop creative assembly design by building a strategic partnership with Serial Cables.

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# EXECUTIVE SUMMARY

Viking Enterprise Solutions, a global leader in server and storage systems, faced challenges with their Tier 1 cable supplier—**long lead times, limited prototyping flexibility, and high costs**. To solve this, Viking partnered with Serial Cables for a more agile, strategic approach.

The results were immediate:

- Custom cable assemblies delivered in 2 weeks
- Fully integrated solutions in 3 weeks
- Streamlined development via design collaboration, 3D model sharing, and engineering checkpoints

This partnership enabled Viking to deploy nearly 1 million custom assemblies across AI/ML, IoT, GPU, streaming, and telecom applications—accelerating innovation, reducing costs, and boosting competitiveness in hyperscale and AI-driven markets.

## About Viking Enterprise Solutions

Viking Enterprise Solutions makes some of the most complex and innovative optical, electronic and mechanical products in the world. Recognized as a technology leader, Sanmina provides end-to-end design, manufacturing and logistics solutions, delivering superior quality and support to Original Equipment Manufacturers (OEMs) primarily in the communications networks, computing and storage, medical, defense and aerospace, industrial and semiconductor, multimedia, automotive and clean technology sectors.

## Viking Enterprise Solutions challenge

When you're a global leader like Viking Enterprise Solutions, pushing the boundaries of hardware innovation means every detail matters—especially the cables that connect your powerful servers, GPU platforms, and AI-driven solutions.

Initially, Viking Enterprise Solutions partnered with a Tier 1 cable manufacturer, but within just 18 months, a few clear challenges started to emerge:

- Long lead times were slowing down product validation
- Rigid prototyping processes were stifling creativity
- Pricing wasn't competitive enough, especially for large-volume orders of sub optimized assemblies

Viking Enterprise Solutions realized that they needed a more strategic partner—someone who could help solve these issues and bring an agile product development mindset to the table .

Serial Cables stepped in with a targeted collaboration, working closely with Viking Enterprise Solutions's engineering executives, operations team, designers, and technicians to deliver impactful solutions rapidly.

# Bringing an agile mindset to cables assembly manufacturing

Serial Cables delivered right off of the bat.

- Within just two weeks, Viking Enterprise Solutions received a custom set of new cable assemblies.
- Within three weeks, a fully engineered set of cables integrated seamlessly into their existing systems.

Serial Cables agility was a game changer for Viking Enterprise Solutions leading to an expanded Serial Cables footprint in their design process, integrating nearly one million custom-designed cable assemblies across diverse applications, including:

- AI/ML projects
- IoT platforms
- Streaming video servers
- GPU expansion chassis
- Telecommunication storage solutions.

Today, these cable assemblies are critical components within the infrastructure powering some of the world's largest hyperscale data centers and leading video streaming services.

## Customized cable assembly designed to meet modern AI box needs

Collaboration between the two companies remains integral to their mutual success. Viking Enterprise Solutions's teams seamlessly share SolidWorks 3D models with Serial Cables' engineering group, minimizing back-and-forth communication and enhancing efficiency in the design and integration phases. Serial Cables even acts as a secondary design checkpoint, ensuring materials are precisely specified for power, current, data integrity, and optimal thermal performance.

When Viking Enterprise Solutions faced challenging hardware layouts to navigate, Serial Cables developed specialized data signal cables, power harnesses, and PCB riser boards designed explicitly to navigate intelligently across cabinet lids, under GPU risers, around heat sinks, and tightly packed components

When asked how to integrate four double-wide GPUs onto a motherboard where three PCIe slots became inaccessible—Serial Cables quickly provided an innovative solution in a matter of weeks.

With just 8mm of clearance beneath GPU cards, Serial Cables designed a bespoke Direct Attach (DA) PCB riser cable that reclaimed unused PCIe slots, enabling support for an additional twelve SSDs. This eliminated the need for sourcing an entirely new motherboard, significantly accelerating time to market and reducing engineering effort and costs.

This custom design would have been impossible to tackle by a larger, less agile, Tier 1 shop.

## Vertical integration to deliver quality at unprecedented speed

Further solidifying its advantage over “old school” providers, Serial Cables manufactures and extrudes its own wire assemblies directly in-house. This vertical integration allows tight control over supply chain processes and drastically cuts lead times, ensuring Viking Enterprise Solutions can always count on timely deliveries—even for highly specialized or custom cable applications.

By partnering with Serial Cables, Viking Enterprise Solutions has unlocked powerful efficiencies, accelerated innovation timelines, and enhanced competitive advantage, proving that even seemingly small connections can yield substantial strategic results.