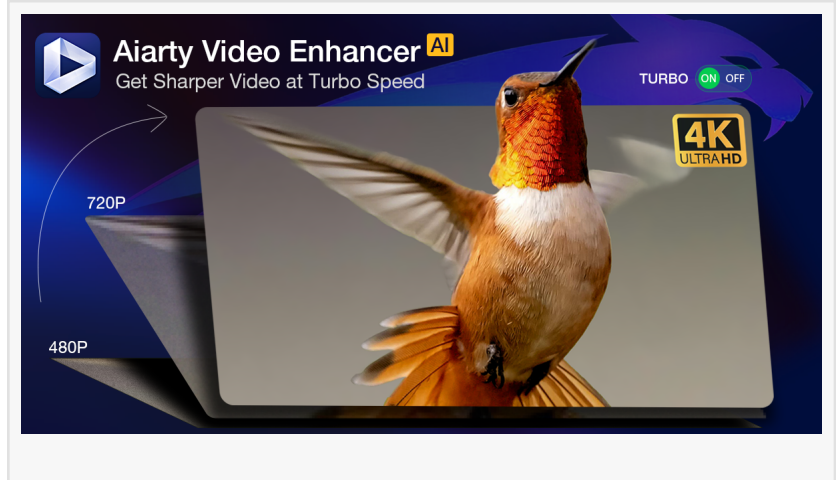# Aiarty Video Enhancer Delivers 3x Faster Speed with AI Model Quantization Optimization

Aiarty Video Enhancer delivers 3× faster speed through optimized AI models, breaking performance bottlenecks without compromising visual quality.

CHENGDU, SICHUAN, CHINA, June 13, 2025 /EINPresswire.com/ -- Just a few days after its release, Aiarty Video Enhancer is making waves for one reason: it's fast. In a market where AI upscaling is often synonymous with multi-hour processing, Aiarty stands out with 3× faster performance compared to common tools—dramatically reducing wait times for video creators.

For time-sensitive creators—such as YouTubers, short-form video editors, freelance videographers, and event filmmakers—speed isn't a luxury, it's a lifeline. Their workflows demand rapid turnaround, often with tight publishing schedules or client delivery deadlines. When enhancement tools process footage at only a few frames per second, the entire pipeline slows to a crawl. Aiarty Video Enhancer is built for these professionals: by cutting hours of waiting into minutes, it enables faster output and the ability to meet deadlines without compromising on quality.

> "
> By optimizing our AI models from the ground up—not just for accuracy, but for efficiency—we're enabling more creators to work faster without compromising their vision."
>
> *Jack Han, CEO of Digiarty Software*

The Tech Behind Aiarty's Speed

The performance leap in Aiarty Video Enhancer is made possible by a series of engineering-level optimizations. The AI models have been carefully pruned and streamlined to accelerate inference while preserving visual fidelity. By optimizing compute precision and compressing model structure, the software delivers faster processing with no perceptual compromise. Built

on the latest TensorRT 10.9 framework and engineered to align with NVIDIA GPU architecture—including RTX 30, 40, and the new 50 series—Aiarty achieves consistently high GPU utilization of up to 95%, compared to just 55% in many competing tools. An asynchronous pipeline design eliminates frame-by-frame bottlenecks, while CUDA-level improvements in memory handling and task scheduling further boost throughput for large-scale video workloads.

Speed Performance Across GPU Tiers

In internal testing, Aiarty achieved 21.7 fps with Turbo off and 31.3 fps with Turbo on during 1080p-to-4K [video upscaling](#) on the RTX 5090—far surpassing the ~7 fps average seen in many existing tools. Aiarty's speed advantage is not limited to flagship GPUs. On the mid-range RTX 3060 Ti, basic enhancement (no upscaling) runs at up to 82 fps on 480p footage and maintains 14–18 fps at 1080p. When doubling resolution, the same GPU still delivers 28–29 fps at 480p and around 10–11 fps at 720p. Even at 4× upscaling, Aiarty sustains 8–10 fps on lower resolutions. The RTX 4060 shows similar advantages, achieving 86 fps for base enhancement and over 29 fps for 2× upscaling at 480p, while 1080p 2× upscale runs at a usable 3.5 fps. These benchmarks reflect Aiarty's practical performance across common GPU tiers and resolution scenarios—not just on flagship hardware.

While delivering industry-leading speed, Aiarty Video Enhancer also maintains an unwavering focus on visual quality. The software's three core AI models—moDetail-HQ, Smooth-HQ, and superVideo vHQ—are built on advanced Diffusion and GAN technologies, each tailored for different enhancement scenarios. moDetail-HQ excels at restoring fine textures like hair, foliage, and natural outdoor detail, offering sharpness without sacrificing realism. Smooth-HQ provides clean, natural output for everyday video scenes, balancing deblurring and denoising with color and texture continuity. For extreme low-light conditions, superVideo vHQ delivers industry-leading noise reduction and detail recovery. These models ensure that even as processing speeds increase, image integrity and perceptual quality remain uncompromised.

"We built Aiarty Video Enhancer with a simple belief: creators shouldn't have to choose between quality and speed," said Jack Han, CEO of Digiarty Software. "By optimizing our AI models from the ground up—not just for accuracy, but for efficiency—we're enabling more creators to work faster without compromising their vision."

Pricing and Availability

Aiarty Video Enhancer is available now for both Windows and macOS platforms. Two licensing options are offered:

 The Standard License is billed annually and currently available at a launch special price of $79 (regularly $99), valid for one device.
 The Lifetime License is available for a one-time payment of $165 (regularly $235), and can be

activated on up to three devices.

Users can download a free trial or purchase the full version directly from the official website: https://www.aiarty.com/ai-video-enhancer/

About Aiarty
Aiarty is Digiarty Software's flagship AI brand, dedicated to creating accessible, cutting-edge AI tools for video/image enhancement, upscaling, background removal, image matting, and so on, supporting users in elevating their digital projects.

About Digiarty Software
For over 19 years, Digiarty Software, creator of Aiarty, WinXDVD, and VideoProc, has been a leader in multimedia software, recognized for its commitment to quality, performance, and customer satisfaction. Digiarty's software suite—covering DVD backup, iPhone management, video transcoding, and editing—has reached over 256 million installations across 180 countries. For more information, please visit the official website: https://www.aiarty.com/.

WANG LI
Digiarty Software
+86 134 3847 4002
email us here
Visit us on social media:
Instagram
Facebook
YouTube
TikTok
X

This press release can be viewed online at: https://www.einpresswire.com/article/821782879