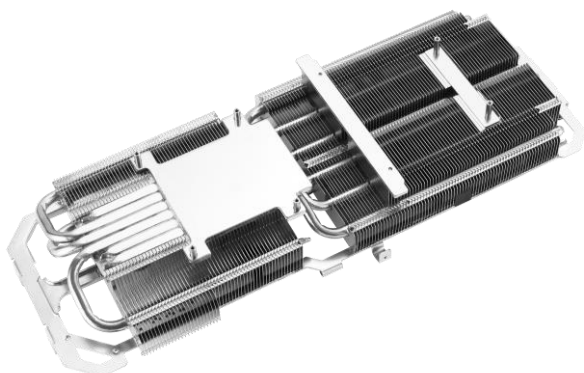## BUILT TUF

ASUS innovations

- **NVIDIA Ampere Streaming Multiprocessors:** The all-new Ampere SM brings 2X the FP32 throughput and improved power efficiency.
- **2nd Generation RT Cores:** Experience 2X the throughput of 1st gen RT Cores, plus concurrent RT and shading for a whole new level of ray-tracing performance.
- **3rd Generation Tensor Cores:** Get up to 2X the throughput with structural sparsity and advanced AI algorithms such as DLSS. These cores deliver a massive boost in game performance and all-new AI capabilities.
- **G6X Memory:** This is the world's fastest graphics memory on the GeForce RTX 3090 Ti.
- **8K HDR Gaming GPU, Powered by AI:** The GeForce RTX 3090 Ti lets you play, capture, and watch your games in brilliant 8K HDR. It features DLSS 8K gaming, GeForce Experience support for 8K HDR game capture, and AV1 decode for efficient playback of 8K HDR streamed video.

■ **Cooling**

A MaxContact heat spreader efficiently transfers heat into a new 3.2-slot heatsink. On top, three Axial-tech fans work in tandem to drive air through the entire array, helping to keep temperature under tight control.

■ **Rigid Structure**

A new all-aluminum shroud adds a robust flair to TUF builds and is accompanied by a metal backplate, helping reduce PCB flex and keep sensitive components safe.

■ Durability

Dual ball fan bearings that stand up to tough conditions more readily than other bearing types and top-shelf capacitors that pass military-grade certification team up to boost product longevity. These components are soldered to the PCB using an Auto-Extreme automated manufacturing process, ensuring accurate placement and a perfect joint every time.

■ Software

Hardware and software come together to let you fully customize your experience and get the most out of your graphics card. GPU Tweak II allows for hardware tweaking and monitoring, and QuantumCloud utilizes your spare GPU computing power to generate passive income.

ASUS Features

24GB GDDR6X Memory:
On-board memory for the best gaming experience & the best resolution.

OC Edition:
1950 MHz GPU boost clock in OC mode for outstanding gaming experience.

NV Features

8K HDR GAMING
Connect, play, capture, and watch in brilliant HDR at resolutions up to 8K with GeForce RTX 3090 or RTX 3090 Ti. Capture up to 8K HDR footage with the GeForce Experience™ ShadowPlay™ feature and play back smoothly with AV1 decode.

RAY TRACING
Ray tracing simulates how light behaves in the real world to produce the most realistic and immersive graphics for gamers and creators. GeForce RTX 30 Series has 2nd generation RT Cores for maximum ray tracing performance.

YOUR AI-POWERED HOME STUDIO
The NVIDIA Broadcast app transforms any room into a home studio—taking your live streams, voice chats and video conference calls to the next level with powerful AI effects like noise removal, virtual background, and more.

GEFORCE RTX 3090 FAMILY THE BFGPUS The GeForce RTX™ 3090 Ti and 3090 are big ferocious GPUs (BFGPUs) with TITAN class performance. Powered by Ampere—NVIDIA's 2nd gen RTX architecture—they double down on ray tracing and AI performance with enhanced Ray Tracing Cores, Tensor Cores, and new streaming multiprocessors. Plus, they feature a staggering 24 GB of G6X memory, all to deliver the ultimate experience for gamers and creators.
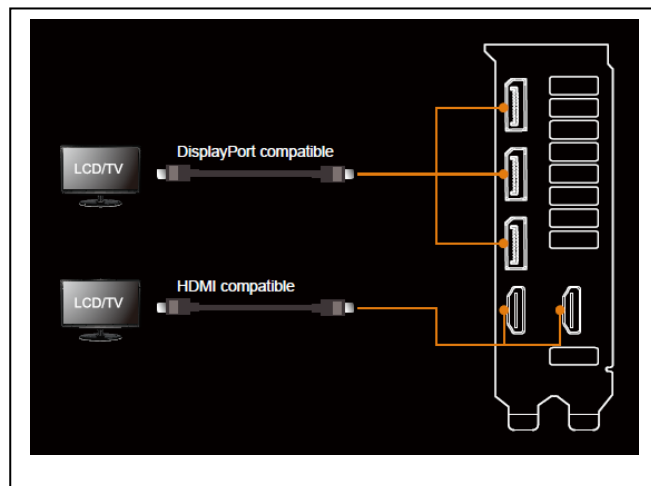

GET FASTER PERFORMANCE WITH NVIDIA DLSS
MAX FPS. MAX QUALITY. POWERED BY AI. Get a performance boost with NVIDIA DLSS (Deep Learning Super Sampling). AI-specialized Tensor Cores on GeForce RTX GPUs give your games a speed boost with uncompromised image quality. This lets you crank up the settings and resolution for an even better visual experience.

UP YOUR CREATIVE GAME
Take your creative projects to a new level with GeForce RTX 30 Series GPUs. Experience AI-acceleration in top creative apps and enhance your workflows with the NVIDIA Studio platform of dedicated drivers and exclusive tools. Whether you're rendering complex 3D scenes, editing 8K video, or seamlessly connecting and collaborating with NVIDIA Omniverse™, GeForce RTX GPUs give you the performance to create your best.

I/O Specifications

Specifications

Model name	TUF-RTX3090TI-O24G-GAMING
Graphics Engine	NVIDIA GeForce RTX™ 3090 Ti
CUDA cores	10752
OpenGL®	OpenGL® 4.6
Engine Clock	OC mode : 1950 (Boost Clock) Gaming mode : 1920 (Base Clock)
Memory Interface	384 bit
Video Memory	24GB GDDR6X
Memory Speed	21 Gbps
Power Connector	1 x 16 pin
I/O	2 x Native HDMI 2.1 3 x Native DisplayPort 1.4a
HDCP Compliant	HDCP 2.3
Digital Max. Resolution	7680 x 4320
Maximum Display Support	4
NVLink/ Crossfire Support	NVLink
Recommended PSU	1000 W
Bus Standard	PCIE 4.0
What's in the box	1 x Collection card 1 x Speedsetup Manual 1 x 16pin to 8pin Adapter Cable
Software Bundled	ASUS GPU Tweak II & GeForce Game Ready Driver & Studio Driver: please download all software from the support site.
Slot	3.2 slot
Dimension	
Card Size (cm/inch)	325.9 *140.2 * 62.8 (mm) 12.83 * 5.52 * 2.47 (inch)
Color Box (mm)	534 x 265 x 85 (mm)
Weight	
Single Card (KG)	1.7 kg
Product Weight (with packing) (KG)	2.7 kg
Note	* Our wattage recommendation is based on a fully overclocked GPU and CPU system configuration. For a more tailored suggestion, please use the "Choose By Wattage" feature on our PSU product page: https://rog.asus.com/event/PSU/ASUS-Power-Supply-Units/index.html * All specifications are subject to change without notice. Please check with your supplier for exact offers. Products may not be available in all markets. If you do not use the latest and current specifications of ASUS products, you shall be liable for all loss and damage claimed by third party to ASUS based on false advertising or any other issues caused from using false specifications of ASUS products.