



## SPECIFICATIONS

<b>Marketing Name</b>	GeForce RTX™ 5090 32G VANGUARD SOC LAUNCH EDITION
<b>Memory</b>	32GB GDDR7
<b>Vi xử lý đồ họa</b>	NVIDIA® GeForce RTX™ 5090
<b>Chuẩn giao tiếp</b>	PCI Express® Gen 5
<b>Bus bộ nhớ</b>	512 bit
<b>Xung nhịp nhân đồ họa(MHz)</b>	Extreme Performance: 2527 MHz (MSI Center) Boost: 2512 MHz (GAMING & SILENT Mode)
<b>Xung nhịp bộ nhớ (MHz)</b>	28 Gbps
<b>Hỗ trợ màn hình tối đa</b>	4
<b>G-SYNC™ technology</b>	Y
<b>Output</b>	DisplayPort x 3 (v2.1b) HDMI™ x 1 (As specified in HDMI™ 2.1b: up to 4K 480Hz or 8K 120Hz with DSC, Gaming VRR, HDR)
<b>Hỗ trợ HDCP</b>	Y
<b>Công suất tiêu thụ (W)</b>	575W
<b>Công suất nguồn đề nghị (W)</b>	1000W
<b>Digital Maximum Resolution</b>	7680 x 4320
<b>Nguồn phụ</b>	16-pin x 1 (ATX 3.1 PSU recommended)
<b>Hỗ trợ phiên bản DirectX</b>	12 Ultimate
<b>Hỗ trợ phiên bản OpenGL</b>	4.6
<b>Kích thước (mm)</b>	357 x 151 x 76 mm
<b>Cân nặng</b>	2407 g / 4456 g

## CONNECTIONS



1. DisplayPort
2. HDMI™

## FEATURES



### HYPER FROZR THERMAL DESIGN

An apex evolution of advanced thermal design that delivers unparalleled cooling and quiet operation.



### STORMFORCE FAN

Seven fan blades, claw texturing, and a circular arc are designed for optimal airflow with minimal noise.



### Advanced Vapor Chamber

Built-in Vapor Chamber swiftly transfers heat from the GPU and VRAM to the core pipe for optimal dissipation.



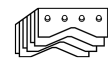
### Core Pipes

Core Pipes feature a square design to maximize contact with the GPU baseplate for optimal thermal management.



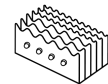
### Filled Fins

Updated heat pipe pathing has allowed more space for additional heatsink fins.



### Air Antegrade Fin 2.0

The fins feature a V-shaped cutout and a high-low design at the airflow passthrough to optimize flow efficiency.



### Wave Curved 4.0

Precision-engineered wave edges with a high-low fin design enhance airflow and reduce turbulence.



### Metal Backplate

A reinforcing metal backplate with airflow vents and thermal pads enhances cooling.



### Dual BIOS

Dual BIOS lets you set the priority to full performance in GAMING mode or low noise in SILENT mode.



### MSI Center

The exclusive MSI Center software lets you monitor, tweak and optimize MSI products in real-time.