

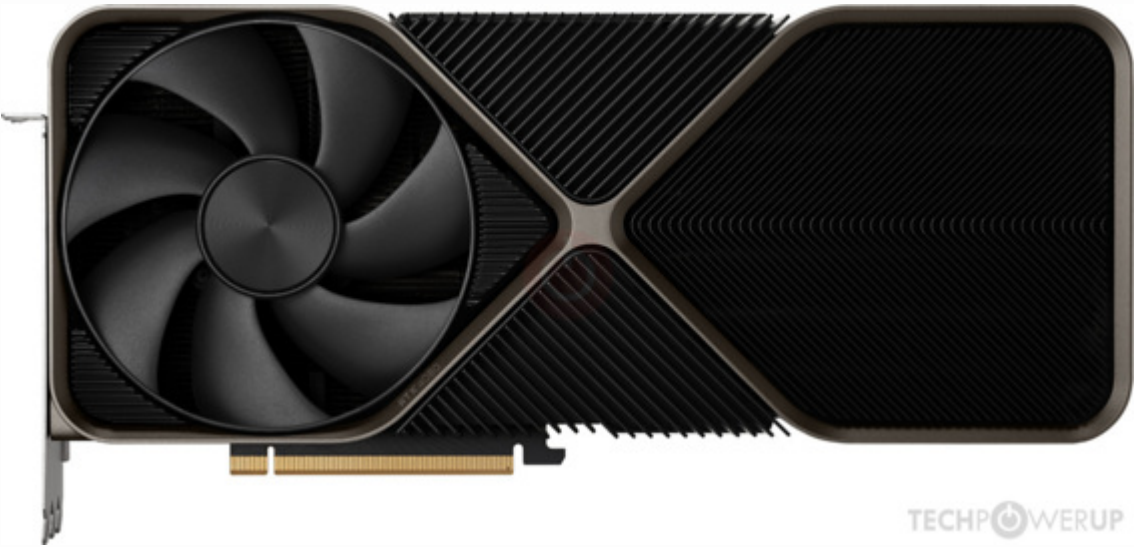
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GPU Database ▶ GeForce RTX 4080 Specs

NVIDIA GeForce RTX 4080

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AD103	9728	304	112	16 GB	GDDR6X	256 bit
GRAPHICS PROCESSOR	CORES	TMUS	ROPS	MEMORY SIZE	MEMORY TYPE	BUS WIDTH



Recommended Gaming Resolutions: 1920x1080 2560x1440 3840x2160

The GeForce RTX 4080 is an enthusiast-class graphics card by NVIDIA, launched on September 20th, 2022. Built on the 5 nm process, and based on the AD103 graphics processor, in its AD103-300-A1 variant, the card supports DirectX 12 Ultimate. This ensures that all modern games will run on GeForce RTX 4080. Additionally, the DirectX 12 Ultimate capability guarantees support for hardware-raytracing, variable-rate shading and more, in upcoming video games. The AD103 graphics processor is a large chip with a die area of 379 mm² and 45,900 million transistors. Unlike the fully unlocked GeForce RTX 4080 SUPER, which uses the same GPU but has all 10240 shaders enabled, NVIDIA has disabled some shading units on the GeForce RTX 4080 to reach the product's target shader count. It features 9728 shading units, 304 texture mapping units, and 112 ROPs. Also included are 304 tensor cores which help improve the speed of machine learning applications. The card also has 76 raytracing acceleration cores. NVIDIA has paired 16 GB GDDR6X memory with the GeForce RTX 4080, which are connected using a 256-bit memory interface. The GPU is operating at a frequency of 2205 MHz, which can be boosted up to 2505 MHz, memory is running at 1400 MHz (22.4 Gbps effective). Being a triple-slot card, the NVIDIA GeForce RTX 4080 draws power from 1x 16-pin power connector, with power draw rated at 320 W maximum. Display outputs include: 1x HDMI 2.1, 3x DisplayPort 1.4a. GeForce RTX 4080 is connected to the rest of the system using a PCI-Express 4.0 x16 interface. The card's dimensions are 310 mm x 140 mm x 61 mm, and it features a triple-slot cooling solution. Its price at launch was 1199 US Dollars.

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GPU Name:	AD103
GPU Variant:	AD103-300-A1
Architecture:	Ada Lovelace
Foundry:	TSMC
Process Size:	5 nm
Transistors:	45,900 million
Density:	121.1M / mm²
Die Size:	379 mm²
Clock Speeds	
Base Clock:	2205 MHz
Boost Clock:	2505 MHz
Memory Clock:	1400 MHz 22.4 Gbps effective

Board Design	
Slot Width:	Triple-slot
Length:	310 mm 12.2 inches
Width:	140 mm 5.5 inches
Height:	61 mm 2.4 inches
TDP:	320 W
Suggested PSU:	700 W
Outputs:	1x HDMI 2.1 3x DisplayPort 1.4a
Power Connectors:	1x 16-pin
Board Number:	PG139 SKU 360

Release Date:	Sep 20th, 2022
Availability:	Nov 16th, 2022
Generation:	GeForce 40
Predecessor:	GeForce 30
Successor:	GeForce 50
Production:	Active
Launch Price:	1,199 USD
Current Price:	Amazon / Newegg
Reviews:	50 in our database
Theoretical Performance	
Pixel Rate:	280.6 GPixel/s
Texture Rate:	761.5 GTexel/s
FP16 (half):	48.74 TFLOPS (1:1)
FP32 (float):	48.74 TFLOPS
FP64 (double):	761.5 GFLOPS (1:64)

GeForce RTX 3080 Ti	
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GeForce RTX 3090	
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GeForce RTX 3090 Ti	
GeForce RTX 4080	
GeForce RTX 4080 SUP...	
Radeon RX 7900 XTX	
Based on TPU review data: "Performance"	

Memory	
Memory Size:	16 GB
Memory Type:	GDDR6X
Memory Bus:	256 bit
Bandwidth:	716.8 GB/s

Graphics Features	
DirectX:	12 Ultimate
OpenGL:	4.6
OpenCL:	3.0
Vulkan:	1.3
CUDA:	8.9
Shader Model:	6.8

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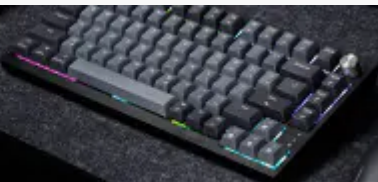
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AD103 GPU Notes				
Ray Tracing Cores: 3rd Gen Tensor Cores: 4th Gen NVENC: 8th Gen NVDEC: 5th Gen PureVideo HD: VP12 VDPAU: Feature Set L				
Latest Drivers: Windows 10 / 11: GeForce Release: Latest Quadro Release: Latest Data Center Release: Latest				

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<div><div> SKILL MEETS STYLE</div><div>K65 PLUS WIRELESS MECHANICAL GAMING KEYBOARD</div><div>VIEW NOW</div></div>				
▼ Name	GPU Clock	Boost Clock	Memory Clock	Other Changes
ASUS ProArt RTX 4080	2205 MHz	2505 MHz	1400 MHz	300 mm/11.8 inches
ASUS ProArt RTX 4080 OC	2205 MHz	2595 MHz	1400 MHz	300 mm/11.8 inches
ASUS ROG STRIX RTX 4080 GAMING	2205 MHz	2505 MHz	1400 MHz	358 mm/14.1 inches, Quad-slot, 2x HDMI 3x DisplayPort

▼ Name	GPU Clock	Boost Clock	Memory Clock	Other Changes
ASUS ROG STRIX RTX 4080 GAMING OC 	2205 MHz	2625 MHz	1400 MHz	358 mm/14.1 inches, Quad-slot, 2x HDMI 3x DisplayPort
ASUS ROG STRIX RTX 4080 GAMING WHITE	2205 MHz	2505 MHz	1400 MHz	358 mm/14.1 inches, Quad-slot, 2x HDMI 3x DisplayPort
ASUS ROG STRIX RTX 4080 GAMING WHITE OC	2205 MHz	2625 MHz	1400 MHz	358 mm/14.1 inches, Quad-slot, 2x HDMI 3x DisplayPort
ASUS RTX 4080 Noctua OC 	2205 MHz	2595 MHz	1400 MHz	Quad-slot, 2x HDMI 3x DisplayPort
ASUS TUF RTX 4080 GAMING	2205 MHz	2505 MHz	1400 MHz	348 mm/13.7 inches, Quad-slot, 2x HDMI 3x DisplayPort
ASUS TUF RTX 4080 GAMING OC	2205 MHz	2595 MHz	1400 MHz	348 mm/13.7 inches, Quad-slot, 2x HDMI 3x DisplayPort
AX Gaming Renegade RTX 4080 X3W	2205 MHz	2505 MHz	1400 MHz	337 mm/13.3 inches
AX Gaming Renegade RTX 4080 X3W OC	2205 MHz	2535 MHz	1400 MHz	337 mm/13.3 inches
Colorful iGame RTX 4080 Advanced	2205 MHz	2505 MHz	1400 MHz	344 mm/13.5 inches
Colorful iGame RTX 4080 Advanced OC	2205 MHz	2625 MHz	1400 MHz	344 mm/13.5 inches, 370 W
Colorful iGame RTX 4080 Chinese New Year Gift Box 2023 Ultra	2205 MHz	2610 MHz	1400 MHz	337 mm/13.3 inches, 350 W
Colorful iGame RTX 4080 Chinese New Year Gift Box 2023 Vulcan	2205 MHz	2640 MHz	1400 MHz	349 mm/13.7 inches, 380 W
Colorful iGame RTX 4080 Neptune	2205 MHz	2505 MHz	1400 MHz	254 mm/10 inches, Dual-slot
Colorful iGame RTX 4080 Neptune OC	2205 MHz	2640 MHz	1400 MHz	254 mm/10 inches, Dual-slot, 470 W
Colorful iGame RTX 4080 Ultra W	2205 MHz	2505 MHz	1400 MHz	337 mm/13.3 inches
Colorful iGame RTX 4080 Ultra W OC 	2205 MHz	2610 MHz	1400 MHz	337 mm/13.3 inches, 350 W
Colorful iGame RTX 4080 Vulcan	2205 MHz	2505 MHz	1400 MHz	349 mm/13.7 inches
Colorful iGame RTX 4080 Vulcan OC	2205 MHz	2640 MHz	1400 MHz	349 mm/13.7 inches, 380 W
Colorful iGame RTX 4080 Vulcan W OC	2205 MHz	2640 MHz	1400 MHz	349 mm/13.7 inches, 380 W
Colorful Tomahawk GeForce RTX 4080 Deluxe Edition	2205 MHz	2580 MHz	1400 MHz	327 mm/12.9 inches
Dell RTX 4080 OEM	2205 MHz	2505 MHz	1400 MHz	
Dell RTX 4080 OEM	2205 MHz	2505 MHz	1400 MHz	
Gainward RTX 4080 Glare	2205 MHz	2505 MHz	1400 MHz	
Gainward RTX 4080 Glare OC	2205 MHz	2565 MHz	1400 MHz	
Gainward RTX 4080 Glare OC Rev. 2	2205 MHz	2565 MHz	1400 MHz	
Gainward RTX 4080 Glare Rev. 2	2205 MHz	2505 MHz	1400 MHz	
Gainward RTX 4080 Glare SOC	2205 MHz	2625 MHz	1400 MHz	
Gainward RTX 4080 Glare SOC Rev. 2	2205 MHz	2625 MHz	1400 MHz	
Gainward RTX 4080 Panther	2205 MHz	2505 MHz	1400 MHz	329 mm/13 inches
Gainward RTX 4080 Phantom	2205 MHz	2505 MHz	1400 MHz	329 mm/13 inches, Quad-slot

▼ Name	GPU Clock	Boost Clock	Memory Clock	Other Changes
Gainward RTX 4080 Phantom GS	 2205 MHz	2640 MHz	1400 MHz	329 mm/13 inches, Quad-slot
Gainward RTX 4080 Phoenix GS	 2205 MHz	2610 MHz	1400 MHz	329 mm/13 inches
Gainward RTX 4080 Wind Chaser	2205 MHz	2505 MHz	1400 MHz	316 mm/12.4 inches
GALAX RTX 4080 Boomstar	2205 MHz	2505 MHz	1400 MHz	342 mm/13.5 inches
GALAX RTX 4080 Boomstar OC	2205 MHz	2580 MHz	1400 MHz	342 mm/13.5 inches, 450 W
GALAX RTX 4080 Boomstar OC Rev. 2	2205 MHz	2580 MHz	1400 MHz	342 mm/13.5 inches, 450 W
GALAX RTX 4080 Boomstar Rev. 2	2205 MHz	2505 MHz	1400 MHz	342 mm/13.5 inches
GALAX RTX 4080 HOF LAB PLUS-X	2205 MHz	2640 MHz	1400 MHz	336 mm/13.2 inches, Quad-slot, 470 W
GALAX RTX 4080 Metal Master	2205 MHz	2505 MHz	1400 MHz	338 mm/13.3 inches
GALAX RTX 4080 Metal Master OC	2205 MHz	2550 MHz	1400 MHz	338 mm/13.3 inches, 380 W
GALAX RTX 4080 Metal Master OC Rev. 2	2205 MHz	2550 MHz	1400 MHz	338 mm/13.3 inches, 380 W
GALAX RTX 4080 Metal Master Rev. 2	2205 MHz	2505 MHz	1400 MHz	338 mm/13.3 inches
GALAX RTX 4080 SG (1-Click OC)	2205 MHz	2565 MHz	1400 MHz	336 mm/13.2 inches, Quad-slot
GALAX RTX 4080 SG White (1-Click OC)	2205 MHz	2565 MHz	1400 MHz	336 mm/13.2 inches, Quad-slot
GALAX RTX 4080 ST (1-Click OC)	2205 MHz	2505 MHz	1400 MHz	336 mm/13.2 inches, Quad-slot
GIGABYTE AORUS RTX 4080 MASTER	2205 MHz	2550 MHz	1400 MHz	357 mm/14.1 inches, Quad-slot
GIGABYTE AORUS RTX 4080 XTREME WATERFORCE	2205 MHz	2565 MHz	1400 MHz	236 mm/9.3 inches, Dual-slot
GIGABYTE AORUS RTX 4080 XTREME WATERFORCE WB	2205 MHz	2565 MHz	1400 MHz	235 mm/9.3 inches, Dual-slot
GIGABYTE RTX 4080 AERO	2205 MHz	2505 MHz	1400 MHz	342 mm/13.5 inches, Quad-slot
GIGABYTE RTX 4080 AERO OC	2205 MHz	2535 MHz	1400 MHz	342 mm/13.5 inches, Quad-slot
GIGABYTE RTX 4080 EAGLE	2205 MHz	2505 MHz	1400 MHz	342 mm/13.5 inches
GIGABYTE RTX 4080 EAGLE OC	2205 MHz	2520 MHz	1400 MHz	342 mm/13.5 inches
GIGABYTE RTX 4080 GAMING	2205 MHz	2505 MHz	1400 MHz	342 mm/13.5 inches
GIGABYTE RTX 4080 GAMING OC	2205 MHz	2535 MHz	1400 MHz	342 mm/13.5 inches
GIGABYTE RTX 4080 WINDFORCE	2205 MHz	2505 MHz	1400 MHz	330 mm/13 inches
Inno3D iChill RTX 4080 BLACK	2205 MHz	2565 MHz	1400 MHz	280 mm/11 inches, Dual-slot, 340 W
Inno3D iChill RTX 4080 FROSTBITE	2205 MHz	2565 MHz	1400 MHz	200 mm/7.9 inches, Dual-slot, 340 W
Inno3D iChill RTX 4080 X3	2205 MHz	2565 MHz	1400 MHz	334 mm/13.1 inches, 340 W
Inno3D RTX 4080 X3	2205 MHz	2505 MHz	1400 MHz	328 mm/12.9 inches
Inno3D RTX 4080 X3 OC	2205 MHz	2535 MHz	1400 MHz	328 mm/12.9 inches

▼ Name	GPU Clock	Boost Clock	Memory Clock	Other Changes
KFA2 RTX 4080 SG (1-Click OC)	2205 MHz	2565 MHz	1400 MHz	336 mm/13.2 inches
KFA2 RTX 4080 ST (1-Click OC)	2205 MHz	2505 MHz	1400 MHz	336 mm/13.2 inches
KUROUTOSHIKOU RTX 4080 GALAKURO	2205 MHz	2580 MHz	1400 MHz	336 mm/13.2 inches, Quad-slot
Leadtek WinFast RTX 4080 HURRICANE	2205 MHz	2505 MHz	1400 MHz	352 mm/13.9 inches
Lenovo RTX 4080 OEM	2205 MHz	2505 MHz	1400 MHz	
Manli RTX 4080 Gallardo (M3520+N701)	2205 MHz	2505 MHz	1400 MHz	320 mm/12.6 inches
Manli RTX 4080 Gallardo (M3535+N688)	2205 MHz	2505 MHz	1400 MHz	351 mm/13.8 inches
MAXSUN RTX 4080 iCraft OC Aijia S0	2205 MHz	2580 MHz	1400 MHz	336 mm/13.2 inches
MAXSUN RTX 4080 iCraft OC Aijia T0	2205 MHz	2580 MHz	1400 MHz	336 mm/13.2 inches
MAXSUN RTX 4080 iCraft OC T0	2205 MHz	2580 MHz	1400 MHz	336 mm/13.2 inches, 340 W
MAXSUN RTX 4080 MGG OC S0	2205 MHz	2625 MHz	1400 MHz	337 mm/13.3 inches, 360 W
MAXSUN RTX 4080 Turbo T0	2205 MHz	2505 MHz	1400 MHz	329 mm/13 inches
MSI RTX 4080 GAMING TRIO	2205 MHz	2505 MHz	1400 MHz	337 mm/13.3 inches
MSI RTX 4080 GAMING TRIO WHITE	2205 MHz	2505 MHz	1400 MHz	337 mm/13.3 inches
MSI RTX 4080 GAMING X SLIM WHITE	2205 MHz	2595 MHz	1400 MHz	322 mm/12.7 inches
MSI RTX 4080 GAMING X TRIO	 2205 MHz	2595 MHz	1400 MHz	337 mm/13.3 inches
MSI RTX 4080 GAMING X TRIO WHITE	2205 MHz	2595 MHz	1400 MHz	337 mm/13.3 inches
MSI RTX 4080 SUPRIM	2205 MHz	2505 MHz	1400 MHz	336 mm/13.2 inches, Quad-slot
MSI RTX 4080 SUPRIM X	 2205 MHz	2625 MHz	1400 MHz	336 mm/13.2 inches, Quad-slot
MSI RTX 4080 VENTUS 3X	2205 MHz	2505 MHz	1400 MHz	322 mm/12.7 inches
MSI RTX 4080 VENTUS 3X E OC	2205 MHz	2535 MHz	1400 MHz	322 mm/12.7 inches
MSI RTX 4080 VENTUS 3X OC	2205 MHz	2535 MHz	1400 MHz	322 mm/12.7 inches
NVIDIA GeForce RTX 4080 Founders Edition	 2205 MHz	2505 MHz	1400 MHz	
Palit RTX 4080 GameRock	2205 MHz	2505 MHz	1400 MHz	329 mm/13 inches, Quad-slot, 340 W
Palit RTX 4080 GameRock OC	2205 MHz	2640 MHz	1400 MHz	329 mm/13 inches, Quad-slot, 340 W
Palit RTX 4080 GameRock OmniBlack	2205 MHz	2505 MHz	1400 MHz	329 mm/13 inches, Quad-slot, 340 W
Palit RTX 4080 GamingPro	2205 MHz	2505 MHz	1400 MHz	329 mm/13 inches
Palit RTX 4080 GamingPro OC	2205 MHz	2610 MHz	1400 MHz	329 mm/13 inches
Palit RTX 4080 JetStream	2205 MHz	2505 MHz	1400 MHz	329 mm/13 inches
PNY RTX 4080 VERTO Triple Fan	2205 MHz	2505 MHz	1400 MHz	340 mm/13.4 inches

▼ Name	GPU Clock	Boost Clock	Memory Clock	Other Changes
PNY XLR8 RTX 4080 REVEL EPIC-X Triple Fan	2205 MHz	2505 MHz	1400 MHz	329 mm/13 inches
PNY XLR8 RTX 4080 UPRISING EPIC-X Triple Fan	2205 MHz	2505 MHz	1400 MHz	365 mm/14.4 inches
PNY XLR8 RTX 4080 VERTO EPIC-X Triple Fan	2205 MHz	2505 MHz	1400 MHz	332 mm/13.1 inches