Nitro ANV15-51 (Win11) Specifications (v8-0-8)

Category		Description	Footnotes
Operating system	1	Windows 11 Home	
CPU and chipset	1	**Intel® Core™ i7-13620H** processor (24 MB Smart Cache, 2.4 GHz Performance-core with Intel® Turbo Boost Max Technology 3.0 up to 4.9 GHz), supporting hybrid core architecture with Performance-core and Efficient-core **Intel® Core™ i5-13420H** processor (12 MB Smart Cache, 2.1 GHz Performance-core with Intel® Turbo Boost Technology 2.0 up to 4.6 GHz), supporting hybrid core architecture with Performance-core and Efficient-core	
Memory	1, 2, 3	Dual-channel DDR5 SDRAM support • Up to 32 GB of DDR5 system memory Memory Frequency : Up to 5200 MT/s	
Display		15.6" display with IPS (In-Plane Switching) technology, Full HD 1920 x 1080, high-brightness (300 nits) Acer ComfyView™ LED-backlit TFT LCD, supporting 165 Hz, 3 ms Overdrive 16:9 aspect ratio, sRGB 100% Wide viewing angle up to 170 degrees Ultra-slim design Mercury free, environment friendly	4
		15.6" display with IPS (In-Plane Switching) technology, Full HD 1920 x 1080, Acer ComfyView™ LED-backlit TFT LCD 16:9 aspect ratio, supporting 144 Hz refresh rate. Wide viewing angle up to 170 degrees Ultra-slim design Mercury free, environment friendly	4
Graphics	1	**NVIDIA® GeForce RTX™ 4050** with 6 GB of dedicated GDDR6 VRAM, supporting 2560 NVIDIA® CUDA® Cores. • With 5th gen MAXQ technology design • 1605 - 2370 MHz Boost Clock • Third Gen Ray Tracing Cores • Fouth Gen Tensor Cores • Ada Lovelace NVIDIA Architecture • Microsoft DirectX® 12 Ultimate. • NVIDIA DLSS 3.0 • NVIDIA Reflex • NVIDIA Broadcast • PCI Express Gen 4	

	- NVIDIA Resizable BAR - NVIDIA GeForce Experience™ - NVIDIA Ansel - NVIDIA FreeStyle - NVIDIA ShadowPlay® - NVIDIA Highlights - NVIDIA G-SYNC® - NVIDIA Game Ready Drivers - NVIDIA Studio Drivers. - NVIDIA Omniverse - NVIDIA GPU Boost™ - Vulkan RT API, OpenGL 4.6 - HDMI - DisplayPort - NVIDIA Dynamic Boost 2.0 - NVIDIA Whisper Mode 2.0 - NVIDIA Advanced Optimus - NVIDIA Battery Boost - NVIDIA Rapid Core Scaling - NVIDIA CPU Optimizer **NVIDIA® GeForce® RTX™ 3050** with 6 GB of dedicated GDDR6 VRAM, supporting 2560 NVIDIA® CUDA® Cores. 990 - 1740 MHz Boost Clock - Second Gen Ray Tracing Cores - Third Gen Tensor Cores - Ampere NVIDIA Architecture - Microsoft DirectX® 12 Ultimate. - NVIDIA DLSS 2.0 - NVIDIA Reflex - NVIDIA Broadcast - PCI Express Gen 4 - NVIDIA Resizable BAR - NVIDIA GeForce Experience™ - NVIDIA Ansel - NVIDIA FreeStyle - NVIDIA ShadowPlay® - NVIDIA Highlights - NVIDIA G-SYNC® - NVIDIA Game Ready Drivers - NVIDIA Studio Drivers. - NVIDIA Omniverse - NVIDIA GPU Boost™ - Vulkan RT API, OpenGL 4.6 - HDMI	

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	• DisplayPort • NVIDIA Dynamic Boost 2.0 • NVIDIA Whisper Mode 2.0 • NVIDIA Advanced Optimus • NVIDIA Battery Boost • NVIDIA Rapid Core Scaling • NVIDIA CPU Optimizer **NVIDIA® GeForce RTX™ 2050** with 4 GB of dedicated GDDR6 VRAM, supporting 2048 NVIDIA® CUDA® Cores. • 1155 - 1477 MHz Boost Clock • Real-Time Ray Tracing • NVIDIA GeForce Experience • NVIDIA Ansel • NVIDIA Highlights • NVIDIA Optimus Technology • NVIDIA BatteryBoost • NVIDIA WhisperMode • Game Ready Drivers • Microsoft® DirectX® 12 API, Vulkan API, OpenGL 4.6 • NVIDIA GPU Boost • 7th Generation NVIDIA Encoder(NVENC)	
Audio	• DTS® X:Ultra Audio, featuring optimized Bass, Loudness, Speaker Protection with up to 6 custom content modes by smart amplifier • Supported in Windows Spatial Sound for PC Gaming with DTS license integrated • Immersive audio rendering over headphones and internal speakers • High SNR DAC with 2.1 Vrms out capability and can driver high impedance headphone (up to 600 ohm) • Acer Purified.Voice technology with AI noise reduction in dual built-in microphones. Features include far-field pickup, dynamic noise reduction through neural network, adaptive beam forming, and pre-defined personal and conference call modes. • Compatible with Cortana with Voice • Acer TrueHarmony technology for lower distortion, wider frequency range, headphone-like audio and powerful sound	
Storage	**Solid state drive** • 512 GB / 1 TB, PCIe Gen4, 16 Gb/s, NVMe • 512 GB / 1 TB, PCIe Gen3, 8 Gb/s, NVMe	 1, 5 1, 5
Webcam [1]	**Video conferencing** UFC with • T-Type HD camera • Compatible with Windows only • 1280 x 720 resolution • 720p HD video at 30 fps with Temporal Noise Reduction	

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		• Blue Glass lens • Dual Mic (33 mm + 33 mm) • 78 x 3.2 (5.2) x 3 mm	
Wireless and networking	1	**WLAN** • 802.11a/b/g/n/ac+ax wireless LAN • Dual Band (2.4 GHz and 5 GHz) • 2x2 MU-MIMO technology • Supports Bluetooth 5.1 or above **LAN** • Gigabit Ethernet	
Security		Acer Bio-Protection fingerprint solution, featuring computer protection and Windows Hello Certification Firmware Trusted Platform Module (TPM) solution BIOS user, supervisor passwords, Kensington lock slot	
Color options			
Dimensions and weight	6, 7	**Dimensions** • 362.3 (W) x 239.89 (D) x 22.9/26.9 (H) mm (14.26 x 9.44 x 0.9/1.06 inches) **Weight** • 2.113 kg (4.66 lbs.) with 4-cell battery pack	

Power adapter and battery	8, 9	**Power adapter**
		3-pin 135 W AC adapter
		• 136.5 (W) x 68.2 (D) x 24.0 (H) mm (5.37 x 2.68 x 0.94 inches)
		• 435 g (0.95 lbs) with 180 cm DC cable
		Battery
		• 57 Wh 4-cell Li-ion battery
		• For models with Full HD IPS Panel + SSD
		  Battery life:
		  Up to 5.5 hours (based on MobileMark® 2018 test results)
		  Up to 8 hours (based on video playback test results)
		  Up to 8 hours (based on web browsing test results)
			10

Input and control		**Keyboard** 99-/100-/103-key Acer keyboard layout with international language support including indicators of CapsLock and F4/Microphone mute **Media Keys** Media control keys (printed on keyboard): volume up, volume down **TouchPad** Multi-gesture secure touchpad, supporting two-finger scroll; pinch; gestures to open Cortana, Action Center, multitasking; Fingerprint application commands • Microsoft Precision Touchpad certification • Moisture resistant • No Deadzone	

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	• Windows Hello Certification • Protecting Against Fingerprint Spoofing	
Input and output	**USB Type-C** USB Type-C™ port supporting: • USB 3.2 Gen 2 (up to 10 Gbps) • DisplayPort over USB-C • Thunderbolt™ 4 • USB charging 5 V; 3 A • DC-in port 20 V; 65 W **USB Standard A** Three USB Standard-A ports, supporting: • One port for USB 3.2 Gen 1 featuring power off USB charging • Two ports for USB 3.2 Gen 1 HDMI® 2.1 port with HDCP support 3.5 mm headphone/speaker jack, supporting headsets with built-in microphone Ethernet (RJ-45) port DC-in jack for AC adapter	
Windows Desktop Apps [11]	**Games** • Planet9 Stub (For Gaming) **In-House** • Acer Care Center • Acer Product Registration • NitroSense • Quick Access **Tools** • Amazon Alexa	
Warranty	One-year International Travelers Warranty (ITW)	

1. Specifications vary depending on model.
2. Shared system memory may be allocated to support graphics, depending on system memory size and other factors. Actual system memory available to the operating system will be reduced by any memory used by the graphics solution and resources required by the operating environment.
3. Memory speed may vary, depending on the CPU, chipset or memory fitted.
4. All brands and product names mentioned herein include trademarks of their respective companies and are used solely to describe or identify the products.
5. 1 GB is 1 billion bytes. Actual formatted capacity is less and may vary depending on preloaded materials and operating environment. Acer Recovery Management uses a portion of the stated hard disk capacity as dedicated backup space.
6. Minor variations in system dimensions are possible due to the manufacturing process.
7. Weight may vary depending on product configuration, vendor components, manufacturing variability, and selected options.
8. Listed battery life is based on testing using video playback. The test clip loops and continues to run, without interruption or any other inputs, until the battery is drained. Stated battery life is for comparison purpose only. Actual battery life varies by model, configuration, applications, video chip format and

features used. A battery's maximum capacity decreases with time and use. Battery life test configuration: 13th Gen Intel® Core™ i5, NVIDIA® GeForce RTX™ 2050, FHD, Dual SSD, 16GB of DDR5 memory. Battery life test condition: LCD brightness 150 nits, connected headphones, WLAN off, Bluetooth off and Better Battery Mode on.

9. Listed battery life is based on testing using Web browsing. The test clip loops the loading of 50 selected websites using Microsoft Edge every 30 seconds, until the battery is drained. Stated battery life is for comparison purpose only. Actual battery life varies by model, configuration, applications, video chip format and features used. A battery's maximum capacity decreases with time and use. Battery life test configuration: 13th Gen Intel® Core™ i5, NVIDIA® GeForce RTX™ 2050, FHD, Dual SSD, 16GB of DDR5 memory. Battery life test condition: 100 nits LCD brightness, 50% speaker volume, WLAN on, Bluetooth on, no WW direct Internet connection.

10. *Actual battery life may vary considerably by specifications, depending on product model, configuration, applications, power management settings, operating conditions, and features utilized. Performance variation also arises based on components in use, which includes but is not limited to the processor, RAM capacity, storage, display and resolution, etc.*

11. Bundled software may vary depending on hardware configuration, OS and regional availability.

In a continuing effort to improve the quality of our products, information in this document is subject to change without notice. Images shown are only representations of some of the configurations available for this model. Availability may vary depending on region.

As a phenomenon known to thin-film transistors (TFTs), liquid crystal displays (LCDs) commonly exhibit a small number of discoloration dots, as so-called "non-conforming pixels." This phenomenon is a limitation of TFT LCD technology, not a product defect, and as such is not covered by Acer's warranty.

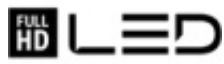Microsoft and Windows are registered trademarks of Microsoft Corporation.

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FHD 165Hz 3ms

FULL HD LED

FULL HD 144Hz

NVIDIA GEFORCE RTX

ACER TrueHarmony

dts x

PurifiedVoice with AI Noise Reduction

SSD fast Data Access

MultiGesture TOUCHPAD

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

COMBO AUDIO JACK

1 Year Warranty

Appendix

v6-0-6 (Ver. 2)

Wireless and networking

Power adapter and battery

Dimensions and weight

v7-0-7 (Ver. 3)

Power adapter and battery and Battery's footnote

v8-0-8 (Ver. 4)

No changes found!