## MSI Cyborg 15 A12VF-043US Intel® Core™ i7 i7-12650H Computadora portátil 39.6 cm (15.6") Full HD 8 GB DDR5-SDRAM 512 GB SSD NVIDIA GeForce RTX 4060 Wi-Fi 6 (802.11ax) Windows 11 Home Negro

Código del producto: CYBORG Marca: MSI Familia de productos: Cyborg

15 A12VF-043US



Configurable TDP-down

Processor base power

Maximum turbo power

35 W

45 W

115 W

A12VF-043US

MSI Cyborg 15 A12VF-043US. Tipo de producto: Computadora portátil, Factor de forma: Concha. Familia de procesador: Intel® Core™ i7, Modelo del procesador: i7-12650H. Diagonal de la pantalla: 39.6 cm (15.6"), Tipo HD: Full HD, Resolución de la pantalla: 1920 x 1080 Pixeles. Memoria interna: 8 GB, Tipo de memoria interna: DDR5-SDRAM. Capacidad total de almacenaje: 512 GB, Unidad de almacenamiento: SSD. Modelo de gráficos en tarjeta: Intel® UHD Graphics, Modelo de adaptador de gráficos discretos: NVIDIA GeForce RTX 4060. Sistema operativo instalado: Windows 11 Home. Color del producto: Negro



Design		Audio	
Colour name Product type * Product colour * Form factor *	Translucent Black Laptop Black Clamshell	Speakers manufacturer Speaker power Built-in microphone Camera	Nahimic 2 W
Market positioning  Display	Gaming	Front camera	<b>V</b>
Display diagonal * Display resolution *	39.6 cm (15.6") 1920 x 1080 pixels	Front camera HD type Video capturing speed	HD 30 fps
Touchscreen *		Network	
HD type LED backlight Native aspect ratio Maximum refresh rate	Full HD  16:9 144 Hz	Top Wi-Fi standard * Wi-Fi standards Mobile network connection * WLAN controller model WLAN controller manufacturer	Wi-Fi 6 (802.11ax) Wi-Fi 6 (802.11ax)  X Intel Wi-Fi 6 AX201
Processor		Ethernet LAN	Intel 🗸
Processor manufacturer * Processor family * Processor generation Processor model *	Intel Intel® Core™ i7 12th gen Intel® Core™ i7 i7-12650H	Ethernet LAN data rates Bluetooth Bluetooth version	10,100,1000 Mbit/s  5.2
Processor cores	10	Ports & interfaces	
Processor boost frequency Efficient-core boost frequency Processor cache	4.7 GHz 3.5 GHz 24 MB	USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity * USB 3.2 Gen 1 (3.1 Gen 1) Type-C	2
Processor cache type  Configurable TDP-down	Smart Cache	ports quantity * Ethernet LAN (RJ-45) ports	1

HDMI ports quantity \*

Combo headphone/mic port

**HDMI** version

1

2.1

Memory		Ports & interfaces	
Internal memory * Internal memory type Memory clock speed	8 GB DDR5-SDRAM 4800 MHz	USB Type-C DisplayPort Alternate Mode	✓
		Performance	
Memory form factor	SO-DIMM	Motherboard chipset	Intel HM670
Memory slots  Maximum internal memory *	2x SO-DIMM 64 GB	Keyboard	
Storage		Pointing device	Touchpad
Total storage capacity *	512 GB	Numeric keypad *	✓
Storage media *	SSD	Keyboard backlit	✓
Total SSDs capacity	512 GB	Keyboard backlit colour	Blue
Number of SSDs installed	1	Island-style keyboard	<b>√</b>
SSD capacity	512 GB	Software	
SSD interface	PCI Express 4.0	Operating system installed *	Windows 11 Home
NVMe SSD form factor	<b>✓</b> M.2	Processor special features	
Optical drive type *	X	Intel Flex Memory Access	<b>✓</b>
Graphics		Intel VT-x with Extended Page Tables (EPT)	✓
Discrete GPU manufacturer	NVIDIA	Execute Disable Bit	✓
Discrete graphics card model *	NVIDIA GeForce RTX 4060	CPU configuration (max)	1
Discrete graphics card memory	8 GB	Embedded options available	×
Discrete graphics memory type	GDDR6	Intel Virtualization Technology for	<b>√</b>
On-board graphics card *	<b>✓</b>	Directed I/O (VT-d) Intel Virtualization Technology (VT-	
On-board GPU manufacturer	Intel	x)	1
Discrete graphics card * On-board graphics card family	✓ Intel® UHD Graphics	Battery	
On-board graphics card model *	Intel® UHD Graphics	Number of battery cells	3
On-board graphics card 4K support	•	Battery capacity *	53.5 Wh
Graphics card Open GL support	<b>✓</b>	Power	
Audio		AC adapter power	120 W
Audio system	Nahimic 3	DC-in jack	✓
Number of built-in speakers	2	Security	
		Cable lock slot	✓
		Cable lock slot type	Kensington
		Weight & dimensions	
		Width	359.4 mm
		Depth	250.3 mm
		Height (front)	2.19 cm
		Height (rear)	2.29 cm
		Weight *	1.98 kg





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