MSI

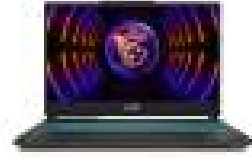# MSI Cyborg 15 A12VE-698BE Intel® Core™ i5 i5-12450H Laptop 39.6 cm (15.6") Full HD 16 GB DDR5-SDRAM 512 GB SSD NVIDIA GeForce RTX 4050 Wi-Fi 6 (802.11ax) Windows 11 Home Black

**Brand :** MSI

**Product family:** Cyborg

**Product code:** CYBORG 15 A12VE-698BE

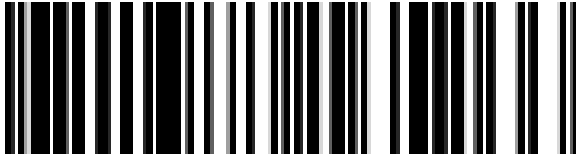**Product name :** Cyborg 15 A12VE-698BE

- Windows 11 Home
- Intel Core i5-12450H (12MB Cache)
- 39.6 cm (15.6") Full HD 1920 x 1080, NVIDIA GeForce RTX 4050 (6GB GDDR6)
- 16GB (5600MHz) DDR5-SDRAM (2 x 8) & 512GB SSD

Intel Core i5-12450H (12MB Cache), 16GB DDR5-SDRAM, 512GB SSD, 39.6 cm (15.6") Full HD 1920 x 1080, Intel UHD Graphics, NVIDIA GeForce RTX 4050 (6GB GDDR6), LAN, WLAN, Webcam, Windows 11 Home

MSI Cyborg 15 A12VE-698BE. Product type: Laptop, Form factor: Clamshell. Processor family: Intel® Core™ i5, Processor model: i5-12450H. Display diagonal: 39.6 cm (15.6"), HD type: Full HD, Display resolution: 1920 x 1080 pixels. Internal memory: 16 GB, Internal memory type: DDR5-SDRAM. Total storage capacity: 512 GB, Storage media: SSD. On-board graphics card model: Intel® UHD Graphics, Discrete graphics card model: NVIDIA GeForce RTX 4050. Operating system installed: Windows 11 Home. Product colour: Black

## Design

| | |
|---|---|
| Colour name | Translucent Black |
| Product type * | Laptop |
| Product colour * | Black |
| Form factor * | Clamshell |
| Market positioning | Gaming |

## Display

| | |
|---|---|
| Display diagonal * | 39.6 cm (15.6") |
| Display resolution * | 1920 x 1080 pixels |
| Touchscreen * | ✖ |
| HD type | Full HD |
| LED backlight | ✔ |
| Native aspect ratio | 16:9 |
| Display brightness | 250 cd/m² |
| Maximum refresh rate | 144 Hz |

## Processor

| | |
|---|---|
| Processor manufacturer * | Intel |
| Processor family * | Intel® Core™ i5 |
| Processor generation | 12th gen Intel® Core™ i5 |
| Processor model * | i5-12450H |
| Processor cores | 8 |
| Processor boost frequency | 4.4 GHz |
| Performance cores | 4 |
| Efficient cores | 4 |
| Performance-core Max Turbo Frequency | 4.4 GHz |
| Efficient-core Max Turbo Frequency | 3.3 GHz |
| Efficient-core boost frequency | 3.5 GHz |
| Processor cache | 12 MB |

## Graphics

| | |
|---|---|
| On-board graphics card 4K support | ✔ |
| Graphics card Open GL support | ✔ |

## Audio

| | |
|---|---|
| Audio system | Nahimic 3 |
| Number of built-in speakers | 2 |
| Speakers manufacturer | Nahimic |
| Speaker power | 2 W |
| Built-in microphone | ✔ |

## Camera

| | |
|---|---|
| Front camera | ✔ |
| Front camera HD type | HD |
| Video capturing speed | 30 fps |

## Network

| | |
|---|---|
| Top Wi-Fi standard * | Wi-Fi 6 (802.11ax) |
| Wi-Fi standards | Wi-Fi 6 (802.11ax) |
| Mobile network connection * | ✖ |
| WLAN controller model | Intel Wi-Fi 6 AX201 |
| WLAN controller manufacturer | Intel |
| Ethernet LAN | ✔ |
| Ethernet LAN data rates | 10,100,1000 Mbit/s |
| Bluetooth | ✔ |
| Bluetooth version | 5.2 |

## Ports & interfaces

| | |
|---|---|
| USB 3.2 Gen 1 (3.1 Gen 1) Type-A ports quantity * | 2 |
| USB 3.2 Gen 1 (3.1 Gen 1) Type-C ports quantity * | 1 |
| Ethernet LAN (RJ-45) ports | 1 |

## Processor

| | |
|---|---|
| Processor cache type | Smart Cache |
| Processor base power | 45 W |
| Maximum turbo power | 95 W |

## Memory

| | |
|---|---|
| Internal memory * | 16 GB |
| Internal memory type | DDR5-SDRAM |
| Memory clock speed | 5600 MHz |
| Memory form factor | SO-DIMM |
| Memory layout (slots x size) | 2 x 8 GB |
| Memory slots | 2x SO-DIMM |
| Maximum internal memory * | 64 GB |

## Storage

| | |
|---|---|
| Total storage capacity * | 512 GB |
| Storage media * | SSD |
| Total SSDs capacity | 512 GB |
| Number of SSDs installed | 1 |
| SSD capacity | 512 GB |
| SSD interface | PCI Express 4.0 |
| NVMe | ✔ |
| Optical drive type * | ✘ |

## Graphics

| | |
|---|---|
| Discrete GPU manufacturer | NVIDIA |
| Discrete graphics card model * | NVIDIA GeForce RTX 4050 |
| Discrete graphics card memory | 6 GB |
| Discrete graphics memory type | GDDR6 |
| On-board graphics card * | ✔ |
| On-board GPU manufacturer | Intel |
| Discrete graphics card * | ✔ |
| On-board graphics card family | Intel® UHD Graphics |
| On-board graphics card model * | Intel® UHD Graphics |

## Ports & interfaces

| | |
|---|---|
| HDMI ports quantity * | 1 |
| Combo headphone/mic port | ✔ |
| Charging port type | DC-in jack |
| USB Type-C DisplayPort Alternate Mode | ✔ |

## Performance

| | |
|---|---|
| Motherboard chipset | Intel HM670 |

## Keyboard

| | |
|---|---|
| Pointing device | Touchpad |
| Numeric keypad * | ✔ |
| Keyboard backlit | ✔ |
| Keyboard backlit colour | Blue |
| Island-style keyboard | ✔ |

## Software

| | |
|---|---|
| Operating system installed * | Windows 11 Home |
| Bundled software | MSI System Control Manager MSI BurnRecovery MSI Remind Manager MSI Battery Calibration MSI Help Desk Norton Internet Security (trail 60days) Norton Studio (Metro) (permanent free) Nvidia GeForce Experience Microsoft Office 2016 (trial 30 days, 1 year per purchase) True Color 2.0 Nahimic 3 Dragon Center 2.0 |

## Battery

| | |
|---|---|
| Number of battery cells | 3 |
| Battery capacity * | 53.5 Wh |

## Power

| | |
|---|---|
| AC adapter power | 120 W |

## Security

| | |
|---|---|
| Cable lock slot | ✔ |
| Cable lock slot type | Kensington |

## Weight & dimensions

| | |
|---|---|
| Width | 359 mm |
| Depth | 250 mm |
| Height | 22.9 mm |
| Weight * | 1.98 kg |

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