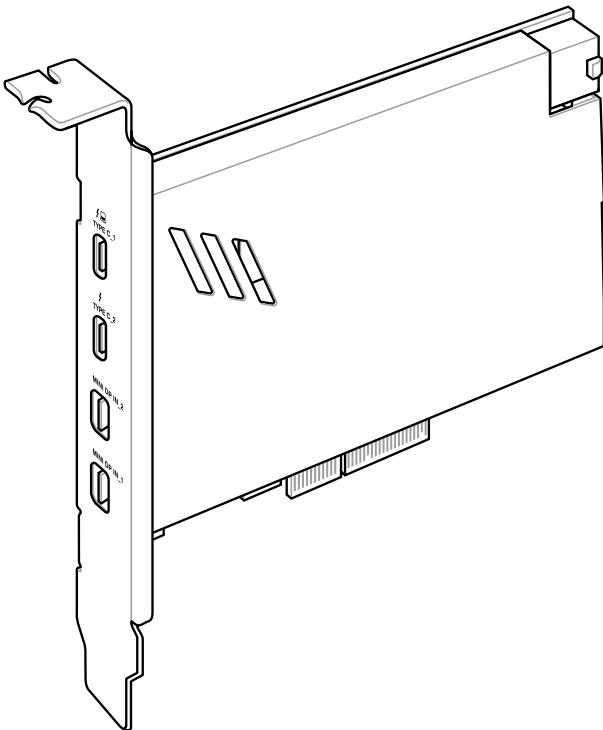




# ThunderboltEX 4

## User Guide



E17815  
First Edition  
January 2021

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# Welcome!

Congratulations and thank you for buying an ASUS ThunderboltEX 4 card!

The ASUS ThunderboltEX 4 card provides Thunderbolt™ connection to other Thunderbolt-enabled devices. Use this card to quickly transfer native PCIe and DisplayPort protocols between a PC and Thunderbolt™ devices.

## Features

Your ASUS ThunderboltEX 4 card features two Thunderbolt™ 4 ports that support Thunderbolt™ 4 technology, and two mini DisplayPort IN ports (support DisplayPort 1.4 specifications) that allow you to redirect VGA input signals through the ThunderboltEX 4 card for video output. The Thunderbolt™ 4 port also features a number of features such as 40 Gb/s bi-directional bandwidth and incorporates DisplayPort 1.4 support, enabling transfer and display of 8K video files simultaneously, and allows you to connect up to five Thunderbolt-enabled devices in a daisy-chain configuration using Thunderbolt™ cables. The TYPEC\_1 port also supports up to 100W for laptop quick charging.

## Package contents

Check your package for the following items:

- 1 x ThunderboltEX 4 card
- 2 x Mini DisplayPort Cables
- 1 x USB 2.0 cable
- 1 x 14-1 pin Thunderbolt™ header cable
- 1 x User manual
- 1 x Support DVD with Thunderbolt™ driver



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If any of the above items is damaged or missing, contact your retailer.

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## ThunderboltEX 4 specifications summary

Chipset	Intel® Thunderbolt™ 4 JHL8540 Controller
External Connectors	2 x Thunderbolt™ 4 USB Type-C® ports - up to 40 Gbps for Thunderbolt™ devices - Type-C_1 supports up to 20V/5A, 100W quick charge feature, Type-C_2 support up to 9V/3A, 27W quick charge feature. 2 x mini DisplayPort IN ports 1 x 6-pin PCIe power connector for quick charge function 1 x USB 2.0 header 1 x Thunderbolt™ header
Interface	PCIe 3.0 x4 interface
VGA	Supports DisplayPort 1.4 with max. resolution 7680 x 4320@60Hz* * Max resolution support will depend on your VGA source
Accessories	2 x Mini DisplayPort cables (links graphics output from motherboard's or discrete graphics card's DisplayPort to the mini DisplayPort IN port on the ThunderboltEX 4 card) 1 x USB 2.0 cable 1 x 14-1 pin Thunderbolt™ header cable 1 x User manual 1 x Support DVD with Thunderbolt™ driver
Compatible Models	ASUS Intel® 500 series and later models with 14-1 pin Thunderbolt™ header* * Refer to the following link for an up-to-date list of compatible models: <a href="https://www.asus.com/Motherboard-Accessories/ThunderboltEX-4/HelpDesk_Manual/">https://www.asus.com/Motherboard-Accessories/ThunderboltEX-4/ HelpDesk_Manual/</a> .
Operating System	Windows® 10 64-bit
Form Factor	4.6 inch x 7.1 inch (11.77 cm*18.05 cm)

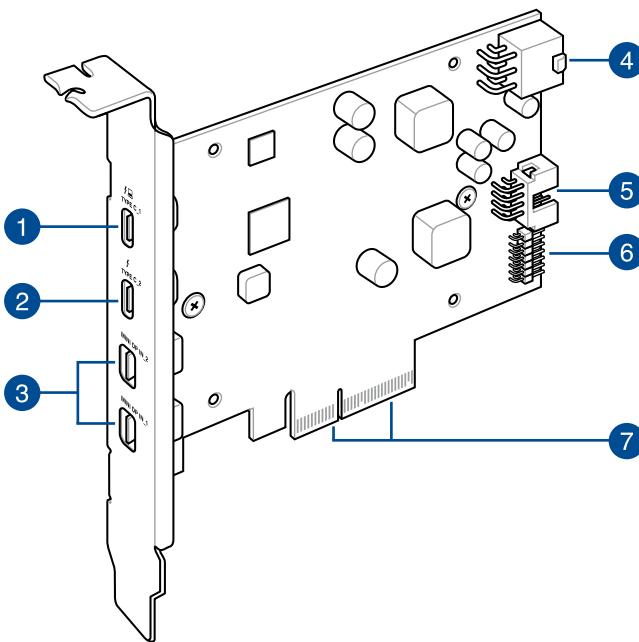


Specifications are subject to change without notice.



- Use only Thunderbolt™ technology-enabled devices that have passed Intel® validation to ensure optimum performance and compatibility with your ThunderboltEX 4 card.
- Ensure your monitor complies with DisplayPort 1.4 specifications if you want to connect them in a daisy-chain configuration using the Thunderbolt™ 4 port.

## ThunderboltEX 4 card layout



- 
- 1 Thunderbolt™ 4 USB Type-C® port  
(supports up to 20V/5A, 100W quick charge feature)
  - 2 Thunderbolt™ 4 USB Type-C® port  
(supports up to 9V/3A, 27W quick charge feature)
  - 3 Mini DisplayPort IN ports
  - 4 6-pin PCIe power connector
  - 5 USB 2.0 header
  - 6 14-1 Pin Thunderbolt™ header
  - 7 PCIE 3.0 x4 interface
-

# Installing the ThunderboltEX 4 card



- The recommended PCIe slot for the ThunderboltEX 4 card may differ between models.
- The following illustrations are for reference only. The motherboard layout may vary with models, but the installation steps remain the same.

1. Shut down your PC.
2. Open the chassis.

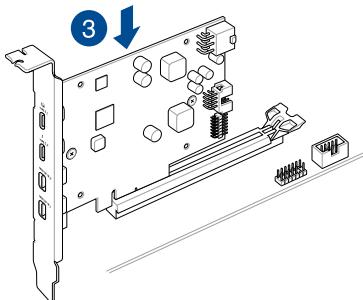


Ensure that no cables or peripherals are blocking the PCIe 3.0 slot.

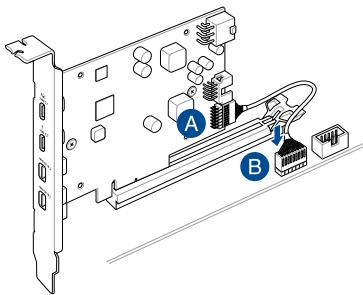
3. Align and insert the ThunderboltEX 4 card into a PCIe 3.0 slot until it is securely seated in place.



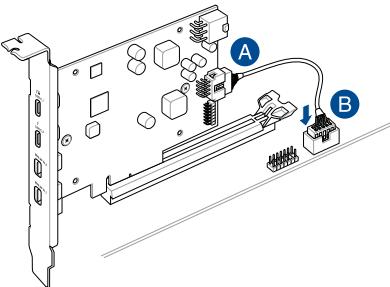
The recommended PCIe slot may differ between models.



4. Connect the bundled 14-1 pin Thunderbolt™ header cable to the ThunderboltEX 4 card (A) and to the **TB\_HEADER** header on the motherboard (B).



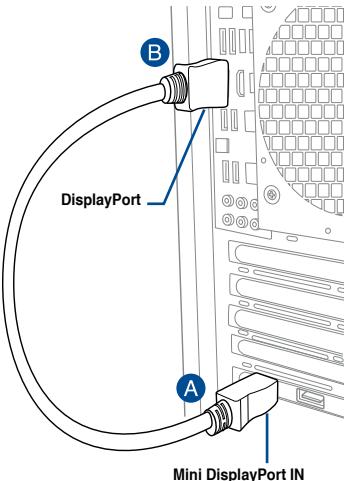
5. Connect the bundled 10-1 pin USB 2.0 cable to the ThunderboltEX 4 card (A) and to a USB 2.0 header on the motherboard (B).



6. Connect the DisplayPort cable to the ThunderboltEX 4 card's Mini DisplayPort IN port (A) and to the DisplayPort on the motherboard's I/O port (B).



- Ensure to use the Mini DisplayPort **MINI DP IN\_1** when using a single Thunderbolt™ display.
- You can also connect the DisplayPort cable to the DisplayPort on a discrete graphic card's I/O port.



7. Close the chassis.
8. Turn on the PC.
9. Connect the Thunderbolt™ 4 cable from your Thunderbolt™-enabled device to a USB Type-C® port on the ThunderboltEX 4 card.



- The Thunderbolt™ 4 cable is not bundled with the ThunderboltEX 4 package. Use the Thunderbolt™ cable that came with your Thunderbolt™-enabled device when connecting to the Thunderbolt™ 4 USB Type-C® port on your ThunderboltEX 4 card.
- The ThunderboltEX 4 card is backward compatible with previous Thunderbolt™ technology.
- Ensure the DisplayPort cable is connected to the Mini DisplayPort **MINI DP IN\_1** when using a single Thunderbolt™ display.
- For the recommended daisy-chain configurations or connections, refer to the section **Connecting to external devices** of this user guide.

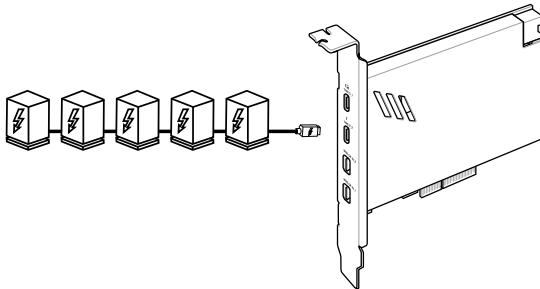
## Connecting to external devices



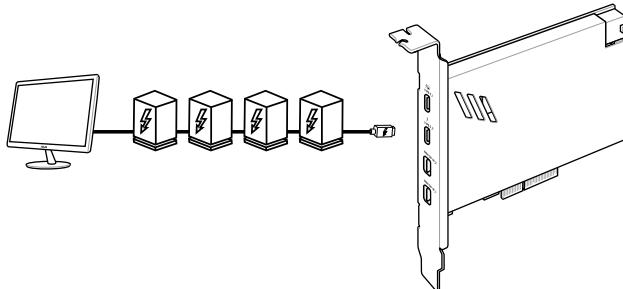
- Before connecting any Thunderbolt™-enabled devices in a daisy-chain configuration, ensure that it is equipped with one Thunderbolt™ IN port and one Thunderbolt™ OUT port.
- The total bandwidth of Thunderbolt™ is 40 Gbps, this is shared between the devices connected in a daisy-chain configuration. The PCIe bandwidth and monitor resolution may vary according to the amount of devices connected

You can refer to the following illustrations for the recommended daisy-chain connections per Thunderbolt™ port:

### Five (5) Thunderbolt™ devices

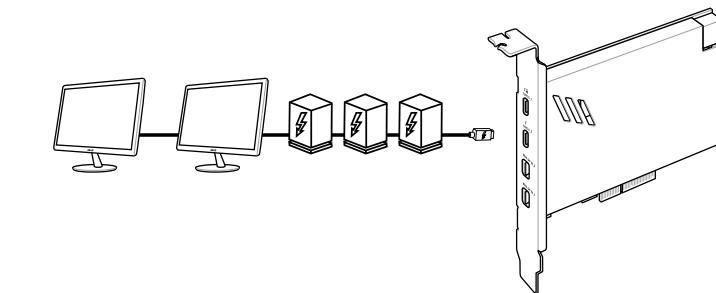


### Four (4) Thunderbolt™ devices + one (1) DisplayPort monitor



The maximum supported monitor resolution for this configuration is 8K, but may differ according to the amount of devices connected.

**Three (3) Thunderbolt™ devices + two (2) DisplayPort monitor**



The maximum supported monitor resolution for this configuration is 4K, but may differ according to the amount of devices connected.

## Installing the ThunderboltEX 4 driver

To install the driver, place the Support DVD into the optical drive then follow on-screen instructions to finish the installation.

## Notices

### FCC Compliance Information

Responsible Party: Asus Computer International

Address: 48720 Kato Rd., Fremont, CA 94538, USA

Phone / Fax No: (510)739-3777 / (510)608-4555

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### Compliance Statement of Innovation, Science and Economic Development Canada (ISED)

This device complies with Innovation, Science and Economic Development Canada licence exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CAN ICES-003(B)/NMB-003(B)

### Déclaration de conformité de Innovation, Sciences et Développement économique Canada (ISED)

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-003(B)/NMB-003(B)

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取扱説明書に従って正しい取り扱いをして下さい。

V C C I - B

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ASUS follows the green design concept to design and manufacture our products, and makes sure that each stage of the product life cycle of ASUS product is in line with global environmental regulations. In addition, ASUS disclose the relevant information based on regulation requirements.

Please refer to <http://csr.asus.com/Compliance.htm> for information disclosure based on regulation requirements ASUS is complied with:

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Complying with the REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) regulatory framework, we published the chemical substances in our products at ASUS REACH website at <http://csr.asus.com/english/REACH.htm>.

### **EU RoHS**

This product complies with the EU RoHS Directive. For more details, see <http://csr.asus.com/english/article.aspx?id=35>

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This product complies with the “India E-Waste (Management) Rules, 2016” and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) in concentrations exceeding 0.1% by weight in homogenous materials and 0.01% by weight in homogenous materials for cadmium, except for the exemptions listed in Schedule II of the Rule.

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Các sản phẩm ASUS bán tại Việt Nam, vào ngày 23 tháng 9 năm 2011 trở về sau, đều phải đáp ứng các yêu cầu của Thông tư 30/2011/TT-BCT của Việt Nam.

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AEEE Yönetmeliğine Uygundur

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ASUS recycling and takeback programs come from our commitment to the highest standards for protecting our environment. We believe in providing solutions for you to be able to responsibly recycle our products, batteries, other components as well as the packaging materials. Please go to <http://csr.asus.com/english/Takeback.htm> for detailed recycling information in different regions.



DO NOT throw the motherboard in municipal waste. This product has been designed to enable proper reuse of parts and recycling. This symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Check local regulations for disposal of electronic products.



DO NOT throw the mercury-containing button cell battery in municipal waste. This symbol of the crossed out wheeled bin indicates that the battery should not be placed in municipal waste.

## Regional notice for California



### **WARNING**

Cancer and Reproductive Harm -  
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<https://www.asus.com/it/support>.

## R: Информация о гарантии ASUS

- ASUS предлагает добровольную гарантию от производителя.
- ASUS оставляет за собой право интерпретирование положений гарантии ASUS.
- Настоящая гарантия ASUS никаким образом не ограничивает Ваши права, предусмотренные локальным законодательством.

Для получения полной информации о гарантии посетите  
<https://www.asus.com/ru/support/>.

## DA: ASUS garantioplysninger

- ASUS tilbyder en valgfri handelsmæssig garanti.
- ASUS forbeholder sig retten til at fortolke bestemmelserne i ASUS' handelsmæssige garanti.
- Denne handelsmæssige garanti fra ASUS tilbydes uafhængigt, som en tilføjelse til den lovbestemte juridiske garanti og den påvirker eller begrænser på ingen måde rettighederne i den juridiske garanti.

Alle garantioplysningerne kan findes på  
<https://www.asus.com/dk/support/>.

## BG: Информация за гаранцията от ASUS

- ASUS предлага доброволна търкова гаранция от производителя.
- ASUS си запазва правото да търкува условията на търковската гаранция на ASUS.
- Тази търкова гаранция на ASUS се предлага независимо от и в допълнение на законовата гаранция. Тя по никакъв начин не оказва влияние върху правата на потребителите в законовата гаранция и по никакъв начин не ги ограничава.

За цялостна информация относно гаранцията, моля, посетете  
<https://www.asus.com/support>.

## CZ: Informace o záruce společnosti ASUS

- Společnost ASUS nabízí dobrovolnou komerční záruku výrobce.
- Společnost ASUS si vyhrazuje právo vykládat ustanovení komerční záruky společnosti ASUS.
- Tato komerční záruka společnosti ASUS je poskytována nezávisle a jako doplněk zákonní záruky a žádným způsobem neovlivňuje ani neomezuje práva vyplývající ze zákoně záruky.

Všechny informace o záruce najdete na adrese  
<https://www.asus.com/cz/support>.

## CR: Informacie o ASUS jamstvu

- ASUS dragovoljno nudi komercijalno proizvodačko jamstvo.
- ASUS zadržava prava na tumačenje odredbi ASUS komercijalnog jamstva.
- Ovo ASUS komercijalno jamstvo daje se neovisno i kao dodatak zakonskom jamstvu i ni na koji način ne ograničjuje prava iz okvira zakonskog jamstva.

Sve informacije o jamstu potražite na  
<https://www.asus.com/support>.

## DU: ASUS-garantie-informatie

- SUS biedt een vrijwillige commerciële garantie van de fabrikant.
- ASUS behoudt zich het recht voor om de bepalingen van de commerciële garantie van ASUS uit te leggen.
- Deze commerciële garantie van ASUS wordt onafhankelijk en als aanvulling op de statutaire Wettelijke garantie geboden en beïnvloedt of beperkt in geen geval de rechten onder de wettelijke garantie.

Voor alle informatie over de garantie, gaat u naar  
<https://www.asus.com/nl/support/>.

## EE: Teave ASUS-e garantii kohta

- ASUS pakub vabatahtlikku tasulist tooltagarantiid.
- ASUS jätab endale õiguse tõlgendada ASUS-e tasulise garantii tingimusi.
- See ASUS-e tasuline garantii on sõltumatu lisagarantii seadusega kehtestatud garantile ega mõjuta mingil määral seadusega kehtestatud garantid ning seadusega kehtestatud garantii piiranguid.

Vaadeakse garantia seotud teavet veebisaidilt  
<https://www.asus.com/ee/>.

## GR: Πληροφορίες εγγύησης ASUS

- H ASUS προσφέρει μια εθελοντική Εμπορική εγγύηση κατασκευαστή.
- H ASUS διατηρει το δικαίωμα ερμηνεύεις των διατάξεων της Εμπορικής εγγύησης ASUS.
- Αυτή η Εμπορική εγγύηση ASUS παρέχεται ανεξάρτητα και επιτρέπεται της θεωρίας Νομικής εγγύησης και σε καμιά περίπτωση δεν επηρεάζει ή περιορίζει το δικαιώματα βάσει της Νομικής εγγύησης.

Για όλες τις πληροφορίες εγγύησης, επακούσθετε τη διεύθυνση  
<https://www.asus.com/gr-cell>.

## HU: ASUS garanciával információk

- Az ASUS önkéntes gyártói kereskedelmi garanciát kínál.
- Az ASUS fenntartja magának a jogot, hogy értelmezze az ASUS kereskedelmi garanciára vonatkozó rendelkezéseket.
- Ezt a kereskedelmi garanciát az ASUS függetlénül és a törvényes garancia mellett nyújtja és semmilyen módon nem befolyásolja, vagy korlátozza a jogi garancia nyújtotta jogokat.

A garanciára vonatkozó teljes körfűrészésű információkért látogasson el a [https://www.asus.com/hu/support\\_oldsatra](https://www.asus.com/hu/support_oldsatra).

## LV: ASUS garantijas informācija

- ASUS piedāvā brīvpārīgu rāzotāju komerciālo garantiju.
- ASUS patur tiesības interpretēt ASUS komerciālās garantijas noteikumus.
- Šī ASUS komerciālā garantija tiek piedāvāta neatkarīgi un papildus likumīku noteiktajai juridiskajai garantijai, un tā nekādi neietekmē vai neierobežo juridiskāgarantijas noteiktās tiesības.

Lai iegūtu informāciju par garantiju, apmeklējet vietni  
<https://www.asus.com/lv/>.

## LT: Informacija apie ASUS garantiją

- ASUS siūlo savanorišką komercinę gamintojo garantiją.
- ASUS pasiliesta tieši savo nuožūtūra aiškinti šios komercinės ASUS garantijos nuostatas.
- Ši komercinė ASUS garantija suteikiama nepriklausoma, be įstatyminių teisinių garantijos, ir jokių būdu nepaveiklia ar neapribina teisinių garantijos suteikiamą teisiši.

Norédami gauti visą informaciją apie garantiją, apsilankykite <https://www.asus.com/lv/>.

## PL: Informacje o gwarancji firmy ASUS

- Firma ASUS oferuje dobowolną gwarancję handlową producenta.
- Firma ASUS zaszczyga sobie prawo do interpretacji warunków gwarancji handlowej firmy ASUS.
- Niniejsza gwarancja handlowa firmy ASUS jest udzielana niezależnie, jak dodatek do wymaganej ustawowo gwarancji prawniej i w żaden sposób nie wpływa na prawa przysługujące na mocy gwarancji prawnej ani ich nie ogranicza.

Wszelkie informacje na temat gwarancji można znaleźć na stronie  
<https://www.asus.com/pl/support>.

**PG: Informações de Garantia ASUS**

- A ASUS oferece uma Garantia Comercial voluntária do fabricante.
- A ASUS reserva o direito de interpretar as disposições da Garantia Comercial da ASUS.
- Esta Garantia Comercial da ASUS é fornecida de forma independente além da Garantia Legal estatutária e não afeta nem limita de qualquer forma os direitos estabelecidos na Garantia Legal.

Para consultar todas as informações sobre a garantia, visite <https://www.asus.com/pt/support/>.

**RO: Informații despre garanția ASUS**

- ASUS oferă o garanție comercială voluntară a producătorului.
- ASUS își rezervă dreptul de a interpreta prevederile garanției comerciale ASUS.
- Această garanție comercială ASUS este oferită independent și în plus față de garanția obligatorie legală și nu afectează sau limitează în niciun fel drepturile acordate conform garanției legale.

Pentru toate informațiile legate de garanție, vizitați <https://www.asus.com/ro/support>.

**SL: Informacije o garanciji ASUS**

- ASUS ponuja prostovoljno tržno garancijo proizvajalca.
- ASUS si pridržuje pravico do razlage določb tržne garancije družbe ASUS.
- Ta tržna garancija družbe ASUS je na voljo neodvisno in kot dodatek zakonsko predpisani pravni garanciji ter na noben način ne vpliva na pravice, ki jih zagotavlja pravna garancija, oziroma jihomeuje.

Vse informacije o garanciji najdete na spletnem mestu <https://www.asus.com/support>.

**SK: Informácia o záruke ASUS**

- ASUS ponúka dobrovoľnú obchodnú záruku výrobcu.
- ASUS si vyhradzuje právo interpretovať ustanovenia obchodnej záruky ASUS.
- Táto obchodná záruka ASUS je poskytnutá nezávisle a navyše k zákonnej záruke a v zlomdnom prípade neovplyvňuje ani neodmedzuje tieto práva podľa tejto zákonnej záruky.

Všetky ďalšie informácie o záruke najdete na <https://www.asus.com/sk/support>.

**ES: Información de garantía de ASUS**

- ASUS ofrece una garantía comercial voluntaria del fabricante.
- ASUS se reserva el derecho de interpretar las disposiciones de esta garantía comercial de ASUS.
- Esta garantía comercial de ASUS se proporciona de forma independiente y adicional a la garantía estatutaria y de ninguna manera afecta a los derechos bajo la garantía legal ni los limita.

Para obtener toda la información sobre la garantía, visite <https://www.asus.com/ES/support>.

**TR: ASUS Garanti Bilgileri**

- ASUS, gönüllü olarak üretilen Ticari Garantisi sunar.
- ASUS, ASUS Ticari Garantisinin hükümlerini yorumlama hakkını saklı tutar.
- Bu ASUS Ticari Garantisı, bağımsız olarak ve hukuki Yasal Garanti'ye ek olarak sağlanır ve hiçbir şekilde Yasal Garanti kapsamındaki hakları etkilemez veya sınırlamaz.

Tüm garanti bilgileri için lütfen <https://www.asus.com/tr/support> adresini ziyaret edin.

**FI: ASUS-takuu tiedot**

- ASUS tarjoaa vapaaehtoisen valmistajan kaupallisen takuun.
- ASUS pitäätkin oikeuden tulkitua ASUS-kaupallisen takuun ehdot.
- Tämä ASUS-kaupallinen takuu tarjoataan itsenäisesti lakisääteisen oikeudellisen takuun lisäksi elika se vaikutta millään tavoin laillisen takuun oikeuksiin tai rajoittaa niitä.

Saadaksesi kaikki takuutiedot, sillo ry osoitteeseen <https://www.asus.com/fi/support>.

**NW: Informasjon om ASUS-garanti**

- ASUS tilbyr som produsent en frivillig kommersiell garanti.
- ASUS forbeholder seg retten til å tolke bestemmelsene i ASUS sin kommersielle garanti.
- ASUS sin kommersielle garanti gis uavhengig og i tillegg til den lovbestemte juridiske garantien, og verken påvirker eller begrenser rettigheten under den juridiske garantien på noen måte.

Du finner fullstendig informasjon om garanti på <https://www.asus.com/no/support>.

**SB: Informacija o ASUS garanciji**

- ASUS nudi dobrovoljnu proizvodjačku komercijalnu garanciju.
- ASUS zadržava pravo da tumači odredbe svoje ASUS komercijalne garancije.
- Ova ASUS komercijalna garancija daje se nezavisno, kao dodatak zakonskoj pravnoj garanciji, i ni ka koj način ne utiče na i ne ograničava prava pravnom garancijom.

Za sve informacije o garanciji, posetite <https://www.asus.com/support/>.

**SV: ASUS garantinformation**

- ASUS erbjuder en frivillig kommersiell tillverkningsgaranti.
- ASUS förbehåller sig rätten att tolka bestämmelserna i ASUS kommersiella garanti.
- Denna kommersiella garanti från ASUS tillhandahålls separat och som tillägg till den lagstadgade garanti, och påverkar eller begränsar på intet sätt rättigheterna under den lagstadgade garanti.

For all garantinformation, besök <https://www.asus.com/se/support/>.

**UA: Інформація про Гарантію ASUS**

- ASUS пропонує добровільну Комерційну Гарантію виробника.
- ASUS застірпає за собою право тлумачити положення Комерційної Гарантії ASUS.
- Цю Комерційну Гарантію надано незалежно і на додаток до обов'язкової Законової Гарантії; вона жодним чином не впливає на права за Законовою Гарантією і не обмежує їх.

Все інформацію про гарантію подано тут:

<https://www.asus.com/ua/support>.

**MX: Garantía y Soporte**

Esta Garantía aplica en el país de compra. Usted acepta que en esta garantía:

- Los procedimientos de servicio pueden variar en función del país.
- Algunos servicios y/o piezas de reemplazo pudieran no estar disponibles en todos los países.
- Algunos países pueden tener tarifas y restricciones que se apliquen en el momento de realizar el servicio, visite el sitio de soporte de ASUS en <https://www.asus.com/mx/support/> para ver más detalles.
- Si tiene alguna queja o necesidad de un centro de reparación local o el período de garantía del producto ASUS, por favor visite el sitio de Soporte de ASUS en <https://www.asus.com/mx/support/> para mayores detalles.

**Información de contacto ASUS**

Esta garantía está respaldada por:

ASUSTek Computer Inc.

Centro de Atención ASUS +52 (55) 1946-3663

**BR: Informações de garantia ASUS**

Esta garantía aplica-se ao período definido pela garantia legal (90 dias) mais o período de garantia comercial oferecido pela ASUS. Por exemplo: 12M significa 12 meses de garantia no total (3 meses de garantia legal mais 9 meses de garantia contratual), 24 meses significa 24 meses de garantia no total (3 meses de garantia legal mais 21 meses de garantia contratual) e 36 meses significa 36 meses de garantia no total (3 meses de garantia legal e 33 de garantia contratual) a contar da data da garantia declarada (Data de Início da Garantia).

Para todas as informações de garantia, visite <https://www.asus.com/br/support/>.



## **ASUS contact information**

### **ASUSTeK COMPUTER INC.**

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Telephone +886-2-2894-3447  
Fax +886-2-2890-7798  
Web site <https://www.asus.com>

#### ***Technical Support***

Telephone +86-21-38429911  
Online support <https://qr.asus.com/techserv>

### **ASUS COMPUTER INTERNATIONAL (America)**

Address 48720 Kato Rd., Fremont, CA 94538, USA  
Telephone +1-510-739-3777  
Fax +1-510-608-4555  
Web site <https://www.asus.com/us/>

#### ***Technical Support***

Support fax +1-812-284-0883  
Telephone +1-812-282-2787  
Online support <https://qr.asus.com/techserv>

### **ASUS COMPUTER GmbH (Germany and Austria)**

Address Harkortstrasse 21-23, 40880 Ratingen, Germany  
Web site <https://www.asus.com/de>  
Online contact <https://www.asus.com/support/Product/ContactUs/Services/questionform/?lang=de-de>

#### ***Technical Support***

Telephone (DE) +49-2102-5789557  
Telephone (AT) +43-1360-2775461  
Online support <https://www.asus.com/de/support>