

# TINKER BOARD S

Innovatively enjoy a whole new digital experience

享受創新的數位體驗  
享受创新的数字体验  
Profitez d'une toute nouvelle expérience numérique et innovante  
Наслаждайтесь новыми инновационными технологиями  
いまだかつてない新感覚のデジタル体験を提供します。  
Sperimentate un'esperienza di interazione digitale completamente nuova!  
Иновативно, наслаждавайте се на изцяло ново цифрово изживяване.  
Zcela nový převratný digitální zážitek  
Nyd en hel ny digital oplevelse  
Geniet innovatief van een volledig nieuwe digitale ervaring  
Naudis innovatiivselt kogu uut digitaalselt kogemust  
Nauti innovativisesta, aivan uudesta digitaalisesta kokemuksesta  
Genießen Sie ein rundum neues Digitalerlebnis  
Καινοτομική απόλαυση μιας εξολοκλήρου νέας εμπειρίας  
Vadonatúj digitális élmény  
Menikmati pengalaman digital yang benar-benar baru secara inovatif.  
Топығымен жаңа сандық тәжірибеге инновациялық түрде қол жеткізіңіз  
완전히 새로운 디지털 세계를 획기적으로 즐겨보세요.  
Güştiet piltigi jaunū digitalo baudījumu inovatīvā veidā  
Mégaukites visiškai naujais skaitmeniniai potyriais  
Få glede av en helt ny, innovativ digital opplevelse  
Korzystaj z zupełnie nowego cyfrowego rozwiązania  
Desfrute de uma nova experiência digital de forma inovadora  
Bucurați-vă în cel mai inovator mod de noua experiență digitală  
Inovativno uživajte u celom, novom, digitalnom iskustvu  
Inovativně si vychutnávejte úplně nový digitální zážitek  
Sea el primero en disfrutar de una nueva experiencia digital total  
Innovativ njutning av en helt ny digital upplevelse  
Tamamen yeni yaratıcı bir dijital deneyim yaşayın  
Tận hưởng trải nghiệm số hoàn toàn mới theo cách cải tiến

استمتع بتجربة رقمية جديدة تمامًا وبشكل مبتكر



## Thank you for purchasing ASUS Tinker Board S!

Tinker Board is more than a dream for the DIY-obsessed: it's a gateway to new ideas and new relationships. Experienced makers will love Tinker Board's performance-to-price ratio and strong brand heritage, while novices and younger users will appreciate its accessibility and ease of use. But all will come together to create — Together We Make!

## Package contents

Check your Tinker Board S package for the following items:

- 1 x Tinker Board S/2G
- 1 x Heatsink\*
- 1 x Shielding bag
- 1 x Quick start guide

\* Beware of high temperatures when only using the bundled heat sink.

## Safety Information

- Power supply used with the Tinker shall comply with relevant regulations and applicable standards.
- DO NOT overclock the board, as this may cause damage to the board.
- Ensure that the board is placed in a well ventilated environment.
- The board should be placed on a flat, stable, non-conductive surface.
- Avoid handling the board while powered. Handle the board by the edges to minimize risk of Electronic Static Damage (ESD).

## ASUS Tinker Board S specifications summary

Processor	Rockchip RK3288 Cortex-A17 Quad-core SoC* * The CPU will operate at full capacity, take note of heat dissipation and AC adaptor stability.
GPU	ARM® Mali™-T760 MP4 GPU
Display	1 x HDMI* supports up to 4K 1 x 15-pin MIPI DSI supports up to HD * HDMI supports a maximum resolution of up to 4K, and the iGPU only supports H.264/H.265 4K hardware decoders.
Memory Size	Dual-CH LPDDR3 2GB
Storage	Micro SD(TF) card slot 16GB eMMC
Connectivity	RTL8211E-VB-CG GB LAN AW-NB177NF 802.11 b/g/n wireless & BT 4.0 + EDR
Audio	RTL ALC4040 Codec with 1 x 3.5mm audio jack * Hardware ready for audio jack plug detection.
USB	4 x USB 2.0 ports
Camera Interface	1 x 15-pin MIPI CSI slot for camera
Internal Headers	1 x 40-pin header includes: - up to 28 x GPIO pins - up to 2 x SPI bus - up to 2 x I2C bus - up to 4 x UART - up to 2 x PWM - up to 1 x PCM/I2S - 2 x 5V power pins - 2 x 3.3V power pins - 8 x ground pins - 1 x 4-pin header for Power On and eMMC Recovery 1 x 2-pin contact point includes: - 1 x PWM signal - 1 x S/PDIF signal
Power Connector	Micro USB * Supports low power voltage detection. ** We recommend using the Tinker Power Supply or a qualified 5V/3A power supply.
OS Support	Debian
Dimension	3.37" x 2.125"
Warranty	1 Year

## Getting Started

### Booting from onboard eMMC

#### Requirement:

- 1 x Micro USB cable with data transfer function
- 1 x Tinker Power Supply\* or other qualified 5V/3A power supply\*\*
- 1 x Monitor with HDMI cable
- 1 x Keyboard and Mouse set

\* The Tinker Power Supply is purchased separately.  
\*\* Ensure that the cable is able to deliver up to 3A of power current.

- Connect the Tinker Board S to a PC using a Micro USB cable, then wait for the PC to recognize the device.
- Download the TinkerOS image from the Tinker Board website and burn it into the Tinker Board S using a third-party ISO software, such as Win32DiskImager or Etcher.
- Connect the power supply, keyboard, mouse, and monitor to your Tinker Board S to boot up.

### Booting from external Micro SD card

#### Requirement:

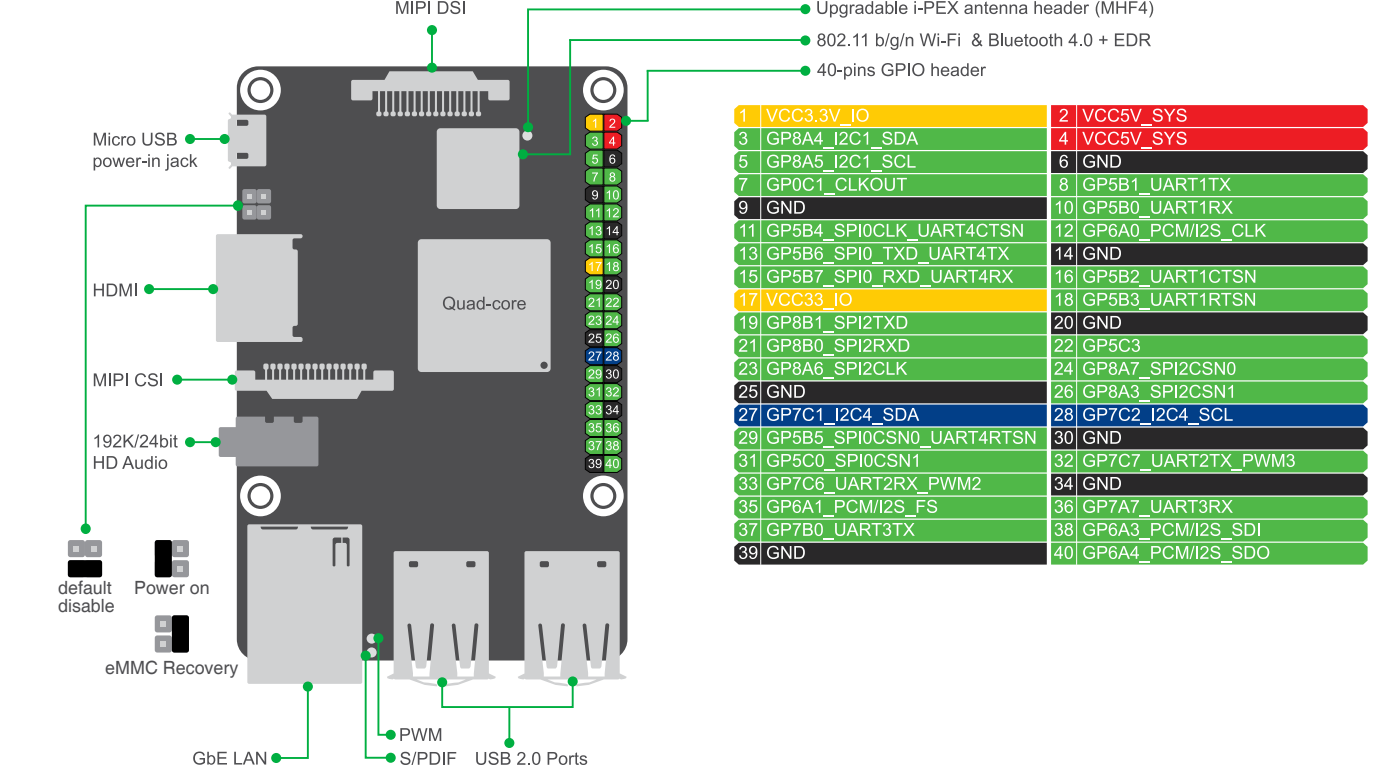
- 1 x Micro SD card with at least 8GB capacity
- 1 x Tinker Power Supply\* or other qualified 5V/3A power supply\*\*
- 1 x Monitor with HDMI cable
- 1 x Keyboard and Mouse set

\* The Tinker Power Supply is purchased separately.  
\*\* Ensure that the cable is able to deliver up to 3A of power current.

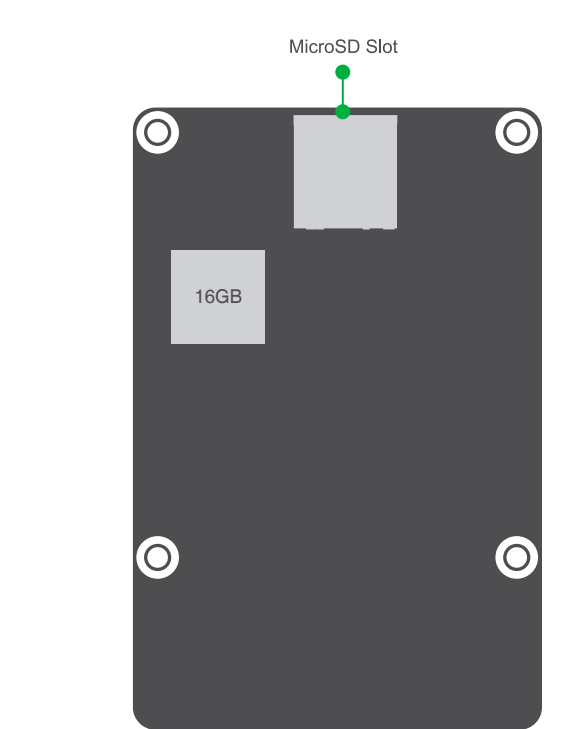
- Insert the micro SD card into a Windows® PC
- Download the TinkerOS image from the Tinker Board website and burn it into the micro SD card using a third-party ISO software, such as Win32DiskImager or Etcher.
- Insert the bootable micro SD card into your Tinker Board, then connect the power supply, keyboard, mouse, and monitor to boot up.

If the eMMC cannot be recognized, please refer to [www.asus.com](http://www.asus.com) for more details on eMMC Recovery.

## Top view



## Bottom view



MicroSD Slot

16GB

