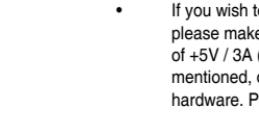




TINKER BOARD

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 zážitek
Nydig en hel ny digital opplevelse
Geniet innovatief van een volledig nieuwe digitale ervaring
Naudi innovatiivselt kogu uut digitaalset kogemust
Nauti innovatiivisesta, avian uudesta digitaalisesta kokemuksesta
Genießen Sie ein rundum neues Digitalerlebnis
Καινοτομική απόλαυση μιας εξολοκήρου νέας εμπειρίας
Vadonatúj digitális élmény
Menikmati pengalaman digital yang benar-benar baru secara inovatif
Толығымен жаңа сәндік тәжірибелі инновациялық түрде көл жеткізінің
완전히 새로운 디지털 세계를 획기적으로 즐겨보세요.
Güstet pilnigi jaunu digitało baudijumu inovativā veidā
Mégakötések visiškai naujas skaitmeniniais potyriais
Få glede av en helt ny, innovativ digital opplevelse
Korzystaj z zupełnie nowego cyfrowego rozwiązań
Desfrute de uma nova experiência digital de forma inovadora
Bucură-ți în cel mai inovator mod de nouă experiență digitală
Inovativno užívajte u celom, novom, digitalnom iskuštu
Inovativne si vychutnávajte úplne nový digitálny zážitok
Sea el primero en disfrutar de una nueva experiencia digital total
Innovativ njutning en av helt ny digital opplevelse
Tamamen yeni yaratıcı bir digital deneyim yaşayın
Tận hưởng trải nghiệm số hoàn toàn mới theo cách cài tiến
ເພີ້ມເພີ້ມການສ່ວນຮ່າງສ່ວນການດິຈິຕາລ່າໃນກໍານົດ
اسمع تجربة رقمية جديدة تماماً وبنك مبتكر

E17573
Revised Edition V5
November 2020



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Thank you for purchasing ASUS Tinker Board!
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 package for the following items:

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

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).
- Do not use both the system Micro USB power-in jack and the 40-pin GPIO +5V pins (pin 2 and 4, red) for power input at the same time. Please refer to the **Top view** illustration for the location of the pins.
- If you wish to use the 40-pin GPIO +5V (pin 2 and 4, red) as a power input source, please make sure the power input rating for each pin complies with the standard of +5V / 3A (+/-5% deviation). A power rating value that exceeds the rating value mentioned, or an unstable power source may result in damage to your system or hardware. Please refer to the **Top view** illustration for the location of the pins.

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ASUS Tinker Board specifications summary

Processor	Rockchip RK3288 Arm® Cortex®-A17 Quad-core SoC*
* Quad-core up to 1.6Ghz and single-core up to 1.8Ghz. The CPU will operate at full capacity, take note of heat dissipation and AC adaptor stability.	
GPU	ARM® Mali™-T760 MP4 GPU
	1 x HDMI™ supports up to 4K
Display	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
Connectivity	RTL2811E-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 (optional)
USB	4 x USB 2.0 ports
Camera Interface	1 x 15-pin MIPI CSI slot for camera
	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 2-pin contact point includes: - 1 x PWM signal - 1 x S/PDIF signal
Power Connector	Micro USB
OS Support	Debian / Android
Dimension	3.37" x 2.125" (85 x 56 mm)

Getting Started

Requirement:

- 1 x Micro SD card with at least 8GB capacity
- 1 x Micro USB cable and a 5V/2A USB power adapter with LPS marking
- 1 x Monitor with HDMI cable
- 1 x Keyboard and Mouse set

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

Top view



Bottom view



Notices

Federal Communications Commission Interference Statement

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 to 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.



Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

End Product Labeling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following:

Contains FCC ID: TX2-RTL8723BS and Contains IC: 6317A-RTL8723BS

HDMI Compliance Statement

The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

Regional notice for Singapore

Complies with
IMDA Standards
DB103778

This ASUS product complies with IMDA Standards.

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

This Class B digital apparatus complies with Canadian ICES-003, RSS-210, and CAN ICES-3(B)/NMB-3(B).

This device complies with Industry Canada license 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.

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

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003, RSS-210 et CAN ICES-3(B)/NMB-3(B).

Cet appareil est conforme aux normes CNR exemptes de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas provoquer d'intéférences et (2) cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité de l'appareil.

Mexico Notice

Contains module RCPERT14-1098

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Radio Frequency (RF) Exposure Information

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized. This device has also been evaluated and shown compliant with the IC RF Exposure limits under mobile phone exposure conditions. (antennas are greater than 20cm from a person's body).

Informations concernant l'exposition aux fréquences radio (RF)

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce périphérique a également été évalué et démontré conforme aux limites d'exposition aux RF d'IC dans des conditions d'exposition à des appareils mobiles (antennes sont supérieures à 20 cm à partir du corps d'une personne).

KC: Korea Warning Statement

B급 기기 (가정용 방송통신기자재)

이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

Maximum Radio-Frequency Output Table	
Bluetooth	Bluetooth RF (2400-2483.5 MHz)
	1.75 (dBm)
	Bluetooth 4.0-LE (2400-2483.5 MHz)
	1.94 (dBm)
WLAN	2.4GHz 802.11b (2400-2483.5 MHz)
	12.95 (dBm)
	2.4GHz 802.11g (2400-2483.5 MHz)
	12.89 (dBm)
	2.4GHz 802.11n HT20 (2400-2483.5 MHz)
	12.78 (dBm)
	2.4GHz 802.11n HT40 (2400-2483.5 MHz)
	10.28 (dBm)

Contains module 2381-14-4076



NCC: Taiwan Wireless Statement

Contains module CCAF14LP0731T0

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Simplified EU Declaration of Conformity

ASUSTek Computer Inc. hereby declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. Full text of EU declaration of conformity is available at <https://www.asus.com/support/>

Declaración de conformidad simplificada para la UE

ASUSTek Computer Inc. declara que este dispositivo está en conformidad con los requisitos esenciales y otras disposiciones pertinentes de la directiva 2014/53/EU. El texto completo de la declaración de conformidad CE está disponible en <https://www.asus.com/support/>

Declaracao de Conformidade UE Simplificada

ASUSTek Computer Inc. erklaerer heret at denne enheten er i samsvar med hovedsaklige krav og andre relevante forskrifter i direktivet 2014/53/EU. Fullstendig tekst for EU-samsvarserklæringen finnes på: <https://www.asus.com/support/>

Apllopoiménē Δήλωση Συμμόρφωσης ΕΕ

Διά τη παρόντος η ASUSTek Computer Inc. δηλώνει ότι αυτή η συσκευή είναι σύμμορφη με τα βασικές οφέλειες και άλλες σχετικές διατάξεις του Οδηγίας 2014/53/EU. Το πλήρες κείμενο της δήλωσης ομμόρφωσης της ΕΕ είναι διαθέσιμο στην ιστοσελίδα <https://www.asus.com/support/>

Declaración simplificada de la UE

ASUSTek Computer Inc. declară că acest dispozitiv este în conformitate cu criteriile esențiale și cu alturi dispoziții relevante din Directiva 2014/53/EU. Înțeles înțeles textul de conformitate UE este disponibil pe adresa <https://www.asus.com/support/>

Zjednodušené ohlásenie o zhode platené pre EU

ASUSTek Computer Inc. ohlásila že tento výrobok je v súlade so základnými požiadavkami a ďalšími príslušnými ustanoveniami smernice č. 2014/53/EU. Plné znenie vyhlásenia o zhode pre EU je dostupné na adresi <https://www.asus.com/support/>

Declaración de conformidad UE, versión simplificada

ASUSTek Computer Inc. erklärt hiermit, dass dieses Gerät mit den grundlegenden Anforderungen und anderen relevanten Bestimmungen der Richtlinie 2014/53/EU übereinstimmt. Der gesamte Text der EU-Konformitätserklärung ist verfügbar unter: <https://www.asus.com/support/>

Forenklet EU-overensstemmelseserklæring

ASUSTek Computer Inc. nyttiggjør seg til å si at dette produktet er i overensstemmelse med hovedkravene og øvrige relevante bestemmelser i direktivet 2014/53/EU. Den fullstendige teksten om overensstemmelseserklæringen kan finnes på <https://www.asus.com/support/>

Egyesült Államokban Üzemeltetéshez következőkben

ASUSTek Computer Inc., bu aygıtın 2014/53/EU Yönergesinin temel gerekliliklerine ve diğer ilgili hükümlerine uygun olduğu bilindi. AB uygunluk bildiriminin tam metni şu adresde bulunabilir: <https://www.asus.com/support/>

Dichiarazione di conformità UE semplificata

ASUSTek Computer Inc. dichiara che questo dispositivo è conforme ai requisiti essenziali e alle altre disposizioni pertinenti con la direttiva 2014/53/EU. Il testo completo della dichiarazione di conformità EU è disponibile all'indirizzo: <https://www.asus.com/support/>

Perryataan Kesuaian UE yang Disederhanakan

ASUSTek Computer Inc. ovim izjavljuje da je ovaj uređaj vidiđevo do sastavljanja i ostale relevantne propisnice 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring is beschikbaar op <https://www.asus.com/support/>

Lihtrusstatud EU vastavusdeklaratsioon

Käesolevaga kinnitab ASUSTek Computer Inc. et seade vastab direktiivi 2014/53/EU oluliste nõuetele ja teistele asjakohastele sätetele. Et vastavusdeklaratsiooni täitskond on saadaval veebisaidil <https://www.asus.com/support/>

Zjednodušené vyhlásenie o zhode platné pre EU

ASUSTek Computer Inc. týmto vyhlašuje, že toto zařízení je v souladu se základními požadavky a dalšími príslušnými ustanoveními směrnice č. 2014/53/EU. Plné znenie vyhlásenia o zhode pre EU je dostupné na lokalite <https://www.asus.com/support/>

Vienkāršota ES atbilstības pazīojums

Spoločnosť ASUSTek Computer Inc. ar ňo paziņo, ka ši ierīce atbilst Direktīvas 2014/53/ES būtiskajām prasībām un citiem ciemam saistīgiem nosacījumiem. Plīns ES atbilstības pazīojuma teksts pieejams šeit: <https://www.asus.com/support/>

Oprostena deklaracija za съответствие на ЕС

Contains module CCAF14LP0731T0

С настоящим ASUSTek Computer Inc. декларирует, что това устройство в съответствии със съществените изисквания и другите приложими постановления на свързаната Директива 2014/53/EU. Пълният текст на ЕС възможността за съвместимост е достъпен на адрес <https://www.asus.com/support/>

Supaprastinta ES atitikties deklaracija

ASUSTek Computer Inc. tukaij izjavlja, da je ta naprava skladna s temeljnimi zahtevami in drugimi relevantnimi določili Direktive 2014/53/EU. Polno besedilo izjave EU o skladnosti je na voljo na <https://www.asus.com/support/>

Declaración de conformidad simplificada para la UE

ASUSTek Computer Inc. declara que este dispositivo cumple con los requisitos básicos y otras disposiciones pertinentes de la directiva 2014/53/EU. El texto completo de la declaración de conformidad CE está disponible en <https://www.asus.com/support/>

Declaracão de Conformidade UE Simplificada

ASUSTek Computer Inc. erklaerer heret at denne enheten er i samsvar med hovedsaklige krav og andre relevante forskrifter i direktivet 2014/53/EU. Fullstendig tekst for EU-samsvarserklæringen finnes på: <https://www.asus.com/support/>

Apllopoiménē Δήλωση Συμμόρφωσης ΕΕ

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Declaración simplificada de la UE

ASUSTek Computer Inc. declară că acest dispozitiv este în conformitate cu criteriile esențiale și cu alturi dispoziții relevante din Directiva 2014/53/EU. Înțeles înțeles textul de conformitate UE este disponibil pe adresa <https://www.asus.com/support/>

Product Name : Motherboard

Address: 800 Corporate Way, Fremont, CA 94539.

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

hereby declares that the product

Product Name : TINKER BOARD

Conforms to the following specifications:

FCC Part 15, Subpart B, Unintentional Radiators

Supplementary Information:

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.

Representative Person's Name : Steve Chang / President

Signature :

Date : Oct. 07, 2015

Ver. 140331

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