Tinker System 3N Series

User Manual

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

E23372

First Edition

June 2024

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Contents

Chapter 4: Software installation

Appendix

About this manual

This manual provides information about the hardware and software features of your Tinker System, organized through the following chapters:

Chapter 1: Getting to know your Tinker System

This chapter details the hardware components of your Tinker System.

Chapter 2: Using your Tinker System

This chapter provides you with information on using your Tinker System.

Chapter 3: Upgrading your Tinker System

This chapter provides you with information on how to upgrade the memory modules, wireless modules, and hard disk drive / solid state drive of your Tinker System.

Chapter 4: Software installation

This chapter will guide you in setting up your Tinker System for the first time.

Appendix

This section includes notices and safety statements for your Tinker System.

Conventions used in this manual

To highlight key information in this manual, some text are presented as follows:

IMPORTANT! This message contains vital information that must be followed to complete a task.

NOTE: This message contains additional information and tips that can help complete tasks.

WARNING! This message contains important information that must be followed to keep you safe while performing certain tasks and prevent damage to your Tinker System's data and components.

Package contents

Your Tinker System package contains the following items:
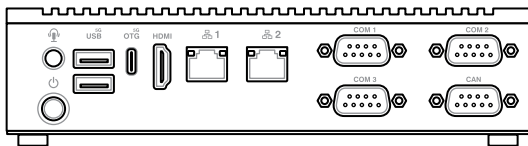
Tinker System 3N Series
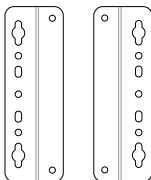
Wall mount kit with two (2) brackets

WWAN antenna

WLAN (Wi-Fi) antenna
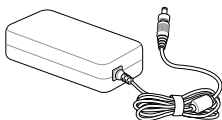
AC power adapter*
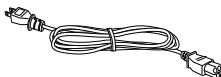
Power cord*
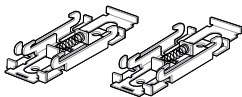
DIN rail clips

NOTE:

- • *The power adapter and power cord available may vary depending on the model and country (or region) of sale.

- • Some bundled accessories may vary depending on the model. For details on these accessories, refer to their respective user manuals.

- • Illustrations of the device and accessories are for reference only. Actual product specifications may vary depending on the model.

- • If the device or its components fail or malfunction during normal and proper use within the warranty period, bring the warranty card to the ASUS Service Center for replacement of the defective components.

1

Getting to know your Tinker System

1.1 Features

1.1.1 Front view
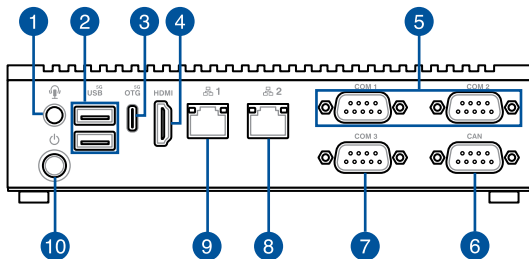
①	🎧	**3.5 Phone jack with mic-in**	

This jack is used to connect your Tinker System to an external headphone with a microphone.

②	USB⁵ᴳ	**USB 5Gbps port**

The USB (Universal Serial Bus) 5Gbps port provides a transfer rate up to 5 Gbit/s.

③	OTG⁵ᴳ	**USB 5Gbps Type-C® OTG port**

This USB Type-C® (Universal Serial Bus) port provides a transfer rate of up to 5 Gbit/s and supports OTG mode, which allows this device to read data from a USB device even when it's not connected to a PC.

4 HDMI **HDMI™ port**

The integrated 19-pin HDMI™ (High Definition Multimedia Interface) 2.0 port with a receptacle connector can support resolutions up to 4096 x 2160 @ 60 Hz on external display devices.

5 COM 1 **Serial (COM) connector (on selected models)**
COM 2

The 9-pin DB9 connector allows you to connect RS-232 serial (COM) devices, such as bar code scanners, modems, and printers. Please refer to the illustration below for the pin definitions of the COM connectors.
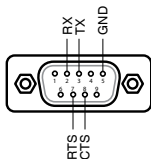
6 CAN **Serial (CAN) connector (on selected models)**

The 9-pin CAN Bus serial connector allows you to connect devices with a CAN interface, such as an electronic control unit (ECU). Please refer to the illustration below for the pin definitions of the CAN Bus connector.
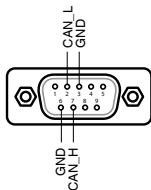
7 **COM 3** **Serial (COM) connector (on selected models)**

The 9-pin RS232/422/485 serial (COM) connector allows you to connect devices that have serial ports, such as bar code scanner, modem, or printers. Please refer to the illustrations below for the pin definitions of the different COM connectors.

NOTE: Default set to RS-232.

RS-232

RS-422

RS-485
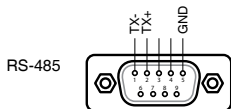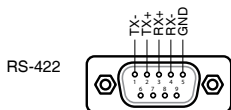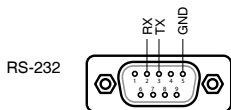
8 🖧 **2** **LAN (RJ-45) port (optional PoE PD support)**

The 8-pin RJ-45 LAN port supports a standard Ethernet cable for 10/100/1000 Mbps connection to a local network.

NOTE: For PoE Power Delivery (PD) support, connect a PoE module (purchased separately) to the PoE VCC-out and DC-in Power headers (refer to the **Motherboard layout** section for the locations).

LAN port 2 LED indications

ACT/LINK LED ── ── SPEED LED

LAN port

Activity Link LED	
Status	**Description**
Off	No link
Yellow	Linked
Yellow (blinking)	Data activity
Yellow (blinking then steady)	Ready to wake up from suspend mode

Speed LED	
Status	**Description**
Off	10 Mbps connection
Orange	100 Mbps connection
Green	1 Gbps connection

9 品 1 **LAN port**

The 8-pin RJ-45 LAN port supports a standard Ethernet cable for 10/100/1000 Mbps connection to a local network.

LAN port 1 LED indications

ACT/LINK LED ——— □■ ——— SPEED LED

LAN port

Activity Link LED	
Status	**Description**
Off	No link
Yellow	Linked
Yellow (blinking)	Data activity
Yellow (blinking then steady)	Ready to wake up from suspend mode

Speed LED	
Status	**Description**
Off	10 Mbps connection
Orange	100 Mbps connection
Green	1 Gbps connection

10 ⏻ **Power button**

The power button allows you to turn the Tinker System on or off. You can use the power button to put your Tinker System to sleep mode or press it for four (4) seconds to force shutdown.

1.1.2   Rear view

Models without expansion module
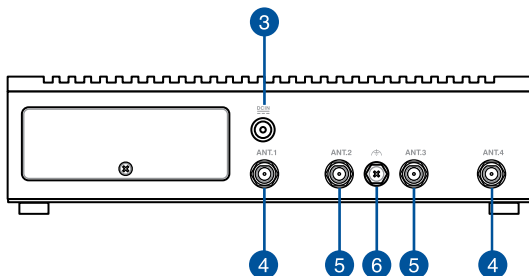
Models with expansion module
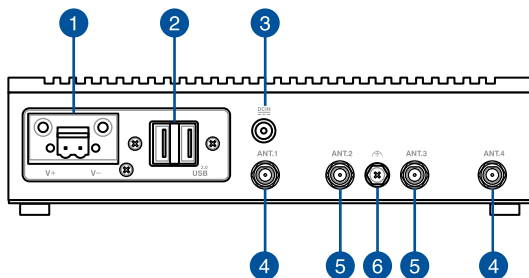
1   **DC terminal block power jack (on selected models)**

The DC terminal block power jack offers an alternate method of supplying power to your Tinker System.

> **WARNING!** Do not connect a power source to this power jack if you have already connected a power source to the barrel power jack. Ensure to use only one type of power input at a time to prevent potential hazards.

2   **USB** 2.0   **USB 2.0 port (on selected models)**

The USB (Universal Serial Bus) port is compatible with USB 2.0 or USB 1.1 devices, such as keyboards, pointing devices, flash disk drives, external HDDs, speakers, cameras, and printers.

3   **DCIN**   **DC barrel power jack**

The supplied power adapter converts AC power to DC power for use with this jack (5.5mm/2.5mm). Power supplied through this jack supplies power to your Tinker System. To prevent damage to your Tinker System, always use the supplied power adapter.

4   **ANT.1**   **WLAN/WWAN wireless antenna jack**
        ANT.4   The WLAN/WWAN wireless antenna jack allows you to connect a wireless antenna for Wi-Fi or 5G NR signals.

> **NOTE:** The WLAN/WWAN wireless antenna is optional and may not come bundled.

5 **ANT.2**   **WWAN wireless antenna jack**
     ANT.3   The WWAN antenna jack allows you to connect a wireless antenna to enhance 4G LTE and 5G NR signals.

> **NOTE:** The WWAN wireless antenna is optional and may not come bundled.

6   **Functional Earth Ground**

The Functional Earth Ground provides you with a grounding point.

1.1.3   Left view

NOTE: The features on this side are covered with a metal cover. Ensure to remove and replace the metal cover when accessing these features. For more information on removing and replacing the metal cover, refer to **Installing a nano SIM card** or **Installing a microSD card**.
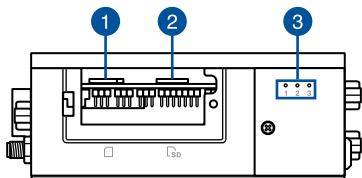
1   **Nano SIM card slot**

This slot allows you to insert a Nano SIM card.

2   **MicroSD card slot**

This slot allows you to insert a microSD card.

> **NOTE:** The microSD card slot is hot swappable.

3   **1 2 3**   **Status LEDs**

The Status LEDs indicate the current status of your Tinker System.

Status LED Indication	
LED	**Color**
Power	Red
Disk Activity	Green
Reserved (programmable)	Yellow

Power LED
Disk Activity LED
Reserved LED (Programmable)

1   2   3
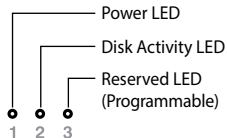
1.1.4   Right view
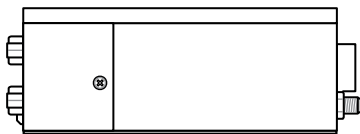
1.2 Motherboard Overview

1.2.1 Motherboard layout

The Tinker System 3N Series is a Tinker System based on a 4" motherboard. Refer to the table for the page numbers of the numbered items.

Top view
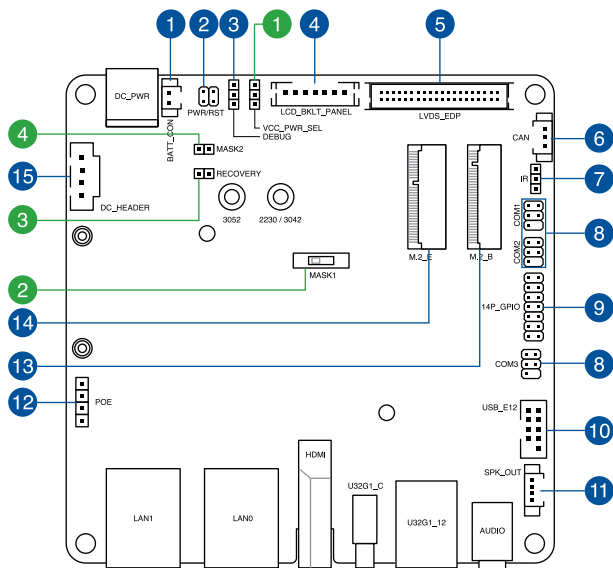
Bottom view
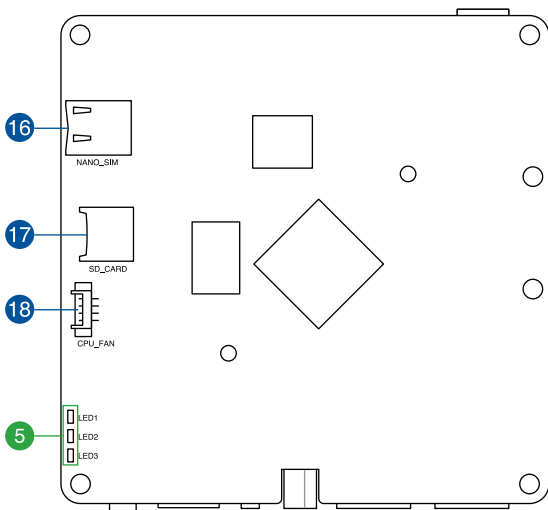
Jumpers/switches/LEDs	Page
1. Display Panel VCC Power Selection jumper	23
2. eMMC Mask ROM DIP switch	23
3. Recovery jumper	24
4. SPI Flash Mask jumper	25
5. Status LEDs	26

Headers/slots	Page
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2. Power / Reset header	27
3. Debug UART header	28
4. Backlight Inverter Power header	29
5. LVDS header	30
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7. IR Receiver header	31
8. Serial (COM) Port header	31
9. GPIO header	32
10. USB 2.0 header	33
11. Internal Speaker header	33
12. PoE VCC-out header	34
13. M.2 (B-key) slot	35
14. M.2 (E-key) slot	36
15. DC-in Power header (also for PoE module)	37
16. Nano SIM Card slot	37
17. MicroSD Card slot	38
18. CPU Fan header	38

1.2.2 Jumperes, switches, and LEDs

1. Display Panel VCC Power Selection jumper (3-pin)

The Display Panel VCC Power jumper allows you to select the voltage for the LVDS panel.

VCC_PWR_SEL

1
2
+5V

2
3
+3.3V
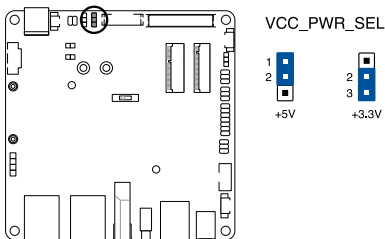
Connector Type	PIN HEADER 3P 2.0MM
Reference PN	DUPONT 2.0 TYPE

2. eMMC Mask ROM DIP switch (on selected models with eMMC)

The eMMC Mask ROM DIP switch when toggled ON allows you to mask the eMMC (ROM) to enter Mask ROM mode for recovery.

MASK1

MASK ROM OFF   MASK ROM ON
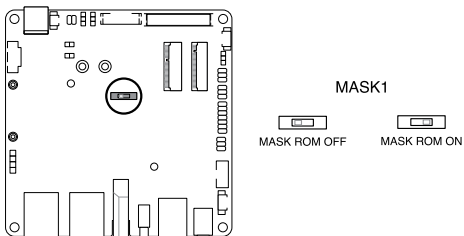
3. **Recovery jumper (2-pin) (on selected models with eMMC)**

The Recovery jumper allows you to enter recovery mode upon reboot to rewrite the eMMC. Place a jumper cap over these pins to enable rebooting to recovery mode.

RECOVERY

Enable
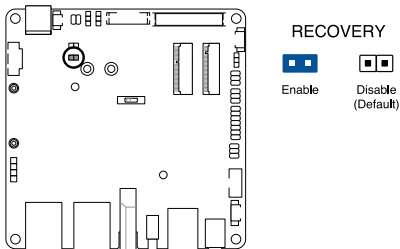
Disable
(Default)

Connector Type	PIN HEADER 2P 2.0MM
Reference PN	DUPONT 2.0 TYPE

4. **SPI Flash Mask jumper (2-pin)**

The SPI Flash Mask jumper allows you to disable the SPI flash mask (removing the jumper cap) when you want to boot from SPI flash to enter UMS mode and overwrite the eMMC.

NOTE: UMS mode allows a device connected to a PC to be mounted as a storage drive.
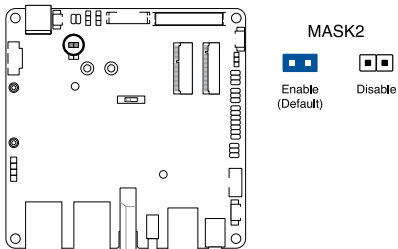
Connector Type	PIN HEADER 2P 2.0MM
Reference PN	DUPONT 2.0 TYPE

5. Status LEDs

The Status LEDs indicate the current status of your Tinker System.
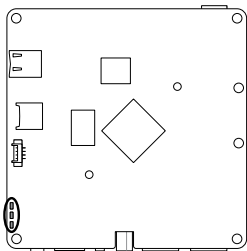
LED

☐ LED1
☐ LED2
☐ LED3

LED Indication		
LED 1 (Red)	**LED 2 (Green)**	**LED 3 (Yellow)**
Power	Disk Activity	Reserved (Programmable)

1.2.3   Internal connectors

1.   RTC Battery header (2-pin)

The RTC Battery header allows you to connect the lithium battery.

BATT_CON

3V_BAT
GND
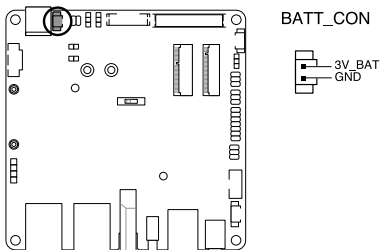
Connector Type	WtoB CON 2P 1.25MM
Reference PN	HRS/DF13-2S-1.25C

2.   Power / Reset header (4-pin)

The Power / Reset header allows you to connect an external power/reset button.

PWR/RST

GND
GND
PWRKEY
RSTKEY
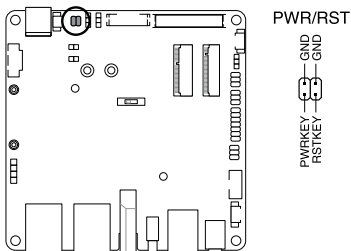
Connector Type	PIN HEADER 2X2P 2.0MM
Reference PN	MOLEX/511100450

3. Debug UART header (2-pin)

The Debug UART header allows you to access a debug terminal with a 3.3 V UART interface and a default Baud rate of 1500000.

DEBUG

TX
RX
GND
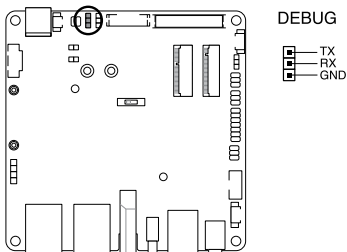
Connector Type	PIN HEADER 3P 2.0MM
Reference PN	DUPONT 2.0 TYPE

4. Backlight Inverter Power header (7-pin)

This 7-pin header allows you to power the backlight inverter on a display panel via a backlight inverter module.

IMPORTANT! The Backlight Inverter Power header supports a maximum current of 3A.

LCD_BKLT_PANEL
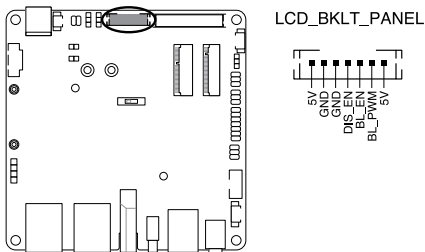
Connector Type	WAFER HD 7P 2.0MM
Reference PN	JST/PHR-2 SERIES

5. LVDS header (40-pin)

The LVDS header allows you to connect an LCD monitor that supports a Low-voltage Differential Signaling (LVDS) interface.

LVDS_EDP
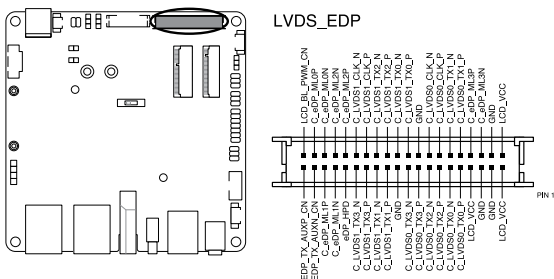
Connector Type	WtoB CON 2X20P 1.25MM
Reference PN	HRS/DF13-40DS-1.25C

6. CAN Bus Serial header (3-pin)

The CAN Bus Serial (CAN) header allows you to connect devices with a CAN interface, such as an electronic control unit (ECU).

CAN

CAN_H
CAN_L
GND
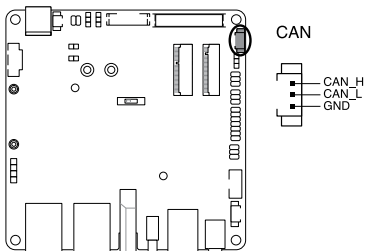
Connector Type	WtoB CON 3P 1.25MM
Reference PN	HRS/DF13-3S-1.25C

7. IR Receiver header (3-pin)

The IR Receiver header allows you to connect a remote sensor to receive and interpret infrared signals.

IR

VCC_IR
GND
IR_INPUT
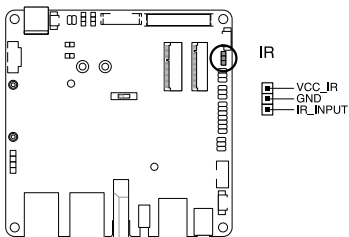
Connector Type	PIN HEADER 3P 2.0MM
Reference PN	DUPONT 2.0 TYPE

8. Serial (COM) Port header (6-1 pin) (COM1 and COM2 on selected models)

The Serial (COM) Port header allows you to connect a serial port module. Connect the serial port module cable to this header, then install the module to a slot opening on the system chassis.

A COM1 RS-232

CTSn — RX
TX — RTSn
GND

B COM2 RS-232

CTSn — RX
TX — RTSn
GND

C COM3 RS-232

TX — RX
GND

RS-422

TX- — TX+
RX+ — RX-

RS-485

TX- — TX+
GND
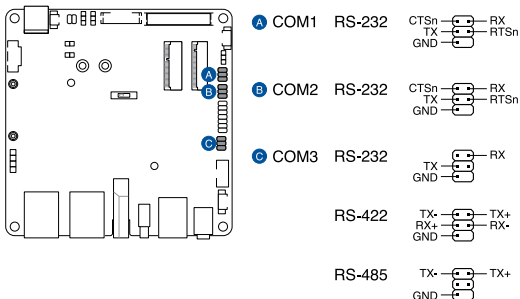
Connector Type	PIN HEADER 2X3P 2.0MM
Reference PN	MOLEX/511100650

9. GPIO header (14-pin)

This 14-pin GPIO (General-Purpose Input/Output) header can be designated (in software) as an input or output pin and is used for a wide range of purposes. Of the 14 pins, 9 are GPIO pins (shared with SPI/UART/I2C pins).
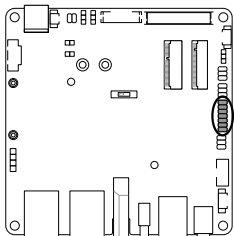
14P_GPIO

ALT Fun 1	ALT Fun 0	PIN		ALT Fun 0	ALT Fun 1	ALT Fun 2	ALT Fun 3	ALT Fun 4
VCC_5V		1	2	VCC_3.3V				
GND		3	4	GPIO4_C2	I2S3_MCLK	SPI3_CLK	PWM14	
UART4_RX	GPIO3_B1	5	6	GPIO4_C3	I2S3_SCLK	SPI3_MOSI	PWM15_IR	
UART4_TX	GPIO3_B2	7	8	GPIO4_C4	I2S3_LRCK	SPI3_CS1	SPDIF_TX	
I2C5_SCL	GPIO3_B3	9	10	GPIO4_C5	I2S3_SDO	SPI3_MISO	PWM12	UART9_TX
I2C5_SDA	GPIO3_B4	11	12	GPIO4_C6	I2S3_SDI	SPI3_CS0	PWM13	UART_RX
	SARADC_VIN6	13	14	SARADC_VIN7				

Connector Type	PIN HEADER 2X7P 2.0MM
Reference PN	MOLEX/511100450

10. USB 2.0 header (10-1 pin)

The USB 2.0 header allows you to connect a USB module for additional USB 2.0 ports. The USB 2.0 header provides data transfer speeds of up to 480 MB/s connection speed.

USB_E12

VCC	VCC
DN1	DN2
DP1	DP2
GND	GND
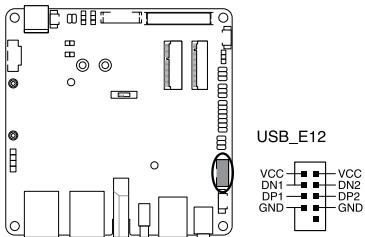
Connector Type	PIN HEADER 2X5P 2.0MM
Reference PN	MOLEX/511101050

11. Internal Speaker header

The Internal Speaker header allows you to connect a chassis-mounted system warning speaker. The speaker allows you to hear system beeps and warnings.

SPK_OUT

SPK_R_OUT_P
SPK_R_OUT_N
SPK_L_OUT_P
SPK_R_OUT_N
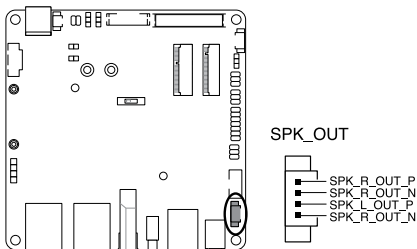
Connector Type	WtoB CON 4P 1.25MM
Reference PN	HRS/DF13-4S-1.25C

12. PoE VCC-out header (4-pin) (on selected models)

The PoE VCC-out header together with the DC power-in header allows you to install a PoE module to enable one of the LAN ports to support Power-over-Ethernet (PoE). Connect the PoE VCC-out header and the DC power-in header to the VCC-in header and the DC power-out header on the PoE module, respectively.

NOTE: If you are installing a PoE module, connect the DC power-out header on it to this header.

DC_HEADER

GND
+19V_DCIN
+19V_DCIN
GND

POE

VCC1
VCC2
VCC3
VCC4
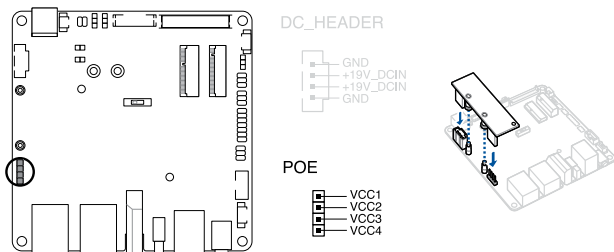
Connector Type	PIN HEADER 4P 2.54MM
Reference PN	JST/RE-04

13. M.2 (B-Key) Slot

The M.2 B-key slot allows you to install an M.2 SSD or a 4G LTE/5G NR module (B-key, type 3042/3052). If necessary, move and reinstall the standoff, based on the length of your M.2 module.

M.2_B
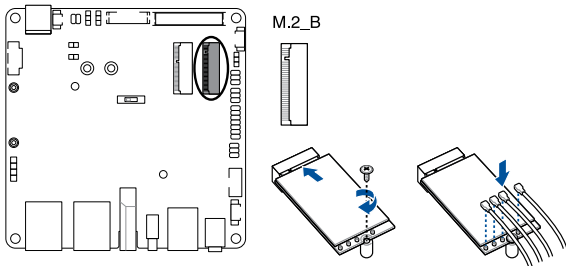
NOTE:

- The M.2 SSD or 4G LTE/5G NR module is purchased separately.

- We recommend using a PH1/sleeve screwdriver with a torque of 2.0±0.2 kgf-cm when tightening the screw/standoff.

- Avoid mounting or placing the antennas on a metal surface as it can be detrimental to antenna performance.

14. M.2 (E-Key) Slot

The M.2 E-key slot allows you to install an M.2 Wi-Fi module (E-key, type 2230).

M.2_E
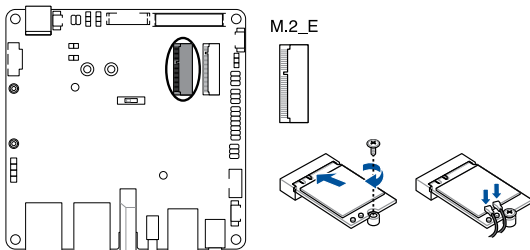
NOTE:

- The M.2 Wi-Fi module is purchased separately.
- We recommend using a PH1/sleeve screwdriver with a torque of 2.0±0.2 kgf-cm when tightening the screw/standoff.
- Avoid mounting or placing the antennas on a metal surface, as it can be detrimental to antenna performance.

15. DC-in Power header

The DC-in Power header is for DC power input. Using a compatible power cable and power board, you may connect a suitable power supply with DC-in jacks.

NOTE: If you are installing a PoE module, connect the DC power-out header on it to this header.

DC_HEADER

GND
+19V_DCIN
+19V_DCIN
GND
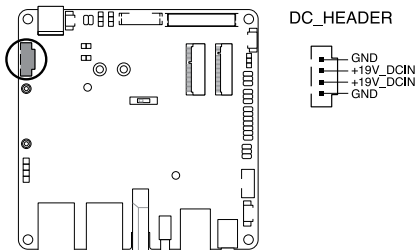
Connector Type	WAFER HD 4P 2.54MM
Reference PN	MOLEX/50579404

16. Nano SIM Card slot

The Nano SIM card slot allows you to install a nano SIM card.

NANO_SIM
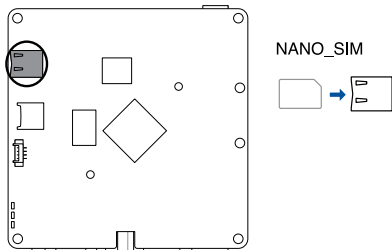
17. MicroSD Card slot

The microSD card slot allows you to install a microSD memory card.

SD_CARD
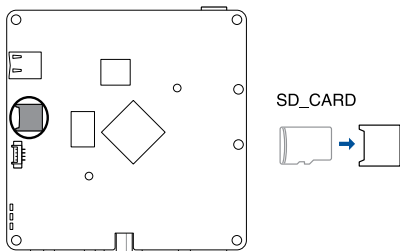
18. CPU Fan header (4-pin)

The CPU Fan header allows you to connect a fan to cool the CPU. Connect the cables from the fan to this header, ensuring that the black cable is connected to the ground pin.

FAN

GND
5V
FANIN
FAN_PWM
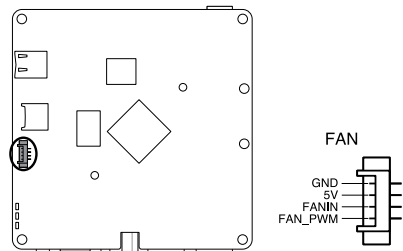
Connector Type	WtoB CON 4P 1.25MM
Reference PN	HRS/DF13-4S-1.25C

2

Using your Tinker System

2.1   Getting started

2.1.1   Connect the AC power adapter to your Tinker System

You can supply power to your Tinker System using the DC barrel power jack or the DC terminal block power jack (available on selected models).

To connect using the barrel power jack:

A.   Connect the power cord to the AC power adapter.

B.   Connect the DC power connector to your Tinker System's DC barrel power jack.

C.   Plug the AC power adapter into a 100 V~240 V power source.

NOTE: The power adapter is purchased separately and may vary in appearance, depending on model and region (country) of sale.
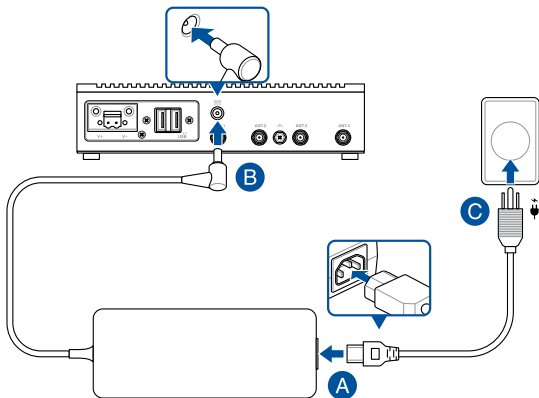
To connect using the terminal block power jack (on selected models):

A. Connect the power cord to the AC power adapter.

B. Connect the 2-pin DC terminal block power connector into your Tinker System's DC terminal block power jack.

C. Plug the AC power adapter into a 100 V~240 V power source.

WARNING! Do not connect a power source to this power jack if you have already connected a power source to the barrel power jack. Ensure to use only one type of power input at a time to prevent potential hazards.

NOTE: The power adapter is purchased separately and may vary in appearance, depending on model and region (country) of sale.
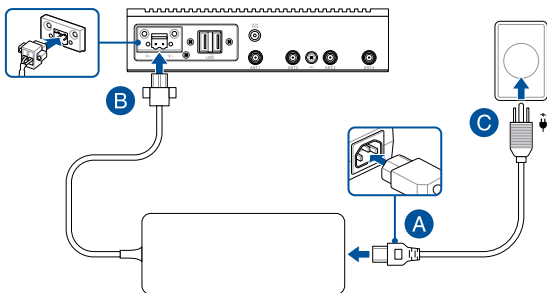
IMPORTANT!

- We strongly recommend that you use only UL-certified power adapters and cables that meet the following requirements or ones that you purchased as an option with your Tinker System.

    65 W Power adapter

    Input voltage: 100-240 Vac

    Input frequency: 50-60 Hz

    Output current: 5.41 A-2.7 A (65.0 W)

    Output voltage: 12-24 Vdc

    System

    Rated voltage: 12-24 Vdc

    Rated current: 5.41 A-2.7 A (65.0 W)

    PoE module with PD support (purchased separately)

    Rated voltage: 50-57 Vdc

    Rated current: 0.6 A-0.52 A (30.0 W)

    IEEE 802.3at (Type 2, PoE+) compliant

- We strongly recommend that you use a grounded wall socket while using your Tinker System.

- The socket outlet must be easily accessible and near your Tinker System.

- To disconnect your Tinker System from its main power supply, unplug your Tinker System from the power socket.

WARNING!
- Do not use power adapters or batteries from other devices to reduce the risk of injury to persons due to fire or explosion. Use only UL certified power adapters or batteries supplied by the manufacturer or authorized retailers.
- Do not disable or remove the power cord grounding plug, the grounding is an important safety feature.
- Make sure to plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.

2.1.2 Connect a display panel to your Tinker System

You can connect a display panel or projector to your Tinker System that has the following connector(s):

• HDMI™ connector

To connect a display panel to your Tinker System:

Connect one end of an HDMI™ cable to an external display, and the other end of the cable to your Tinker System's HDMI™ port.

Connect display via HDMI™ port
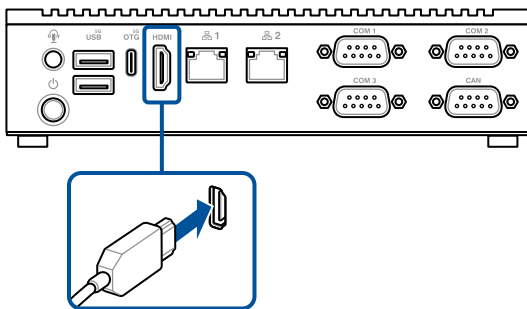
2.1.3   Connect the USB cable from keyboard or mouse

You can connect generally any USB keyboard and mouse to your Tinker System. You can also connect a USB dongle for a wireless keyboard and mouse set.

To connect a keyboard and mouse to your Tinker System:

Connect the USB cable from your keyboard and mouse to any of the USB ports of your Tinker System.

NOTE:

* The keyboard varies with country and/or region.
* The keyboard and mouse are purchased separately.
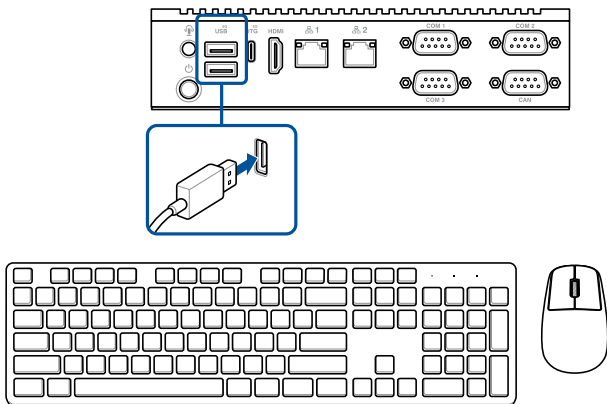
2.1.4   Turn on your Tinker System

Press the power button to turn on your Tinker System if it does not power on automatically when you connect it to a power source.
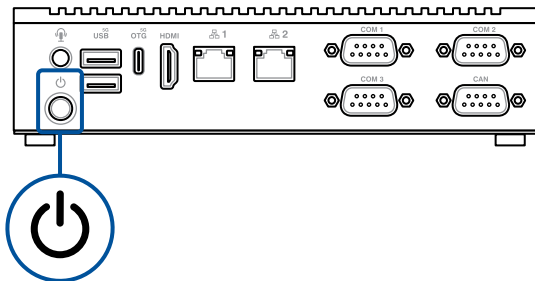
2.2 Turning off your Tinker System

If your Tinker System is unresponsive, press and hold the power button for at least four (4) seconds until your Tinker System turns off.

3

Upgrading your Tinker System

3.1   Removing the bottom cover

IMPORTANT!

- Ensure that your hands are dry before proceeding with the rest of the installation process. Before installing any of the features in this guide, use a grounded wrist strap or touch a safely grounded object or metal object to avoid damaging them due to static electricity.

- Turn off the power of your Tinker System and allow it to cool for at least 10 minutes before performing any installation/uninstallation process.

NOTE: The illustrations in this section are for reference only. The slots may vary depending on model.

1. Turn off your Tinker System, and then disconnect all cables and peripherals.

2. Place the Tinker System on a flat stable surface with its top side facing down.

3. Remove the screws from the bottom cover, and then remove the bottom cover.
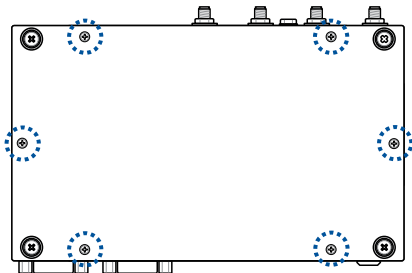
3.2   Replacing the bottom cover

1. Align the screw holes on the bottom cover with those on your Tinker System's chassis. Secure the bottom cover using the screws removed previously.
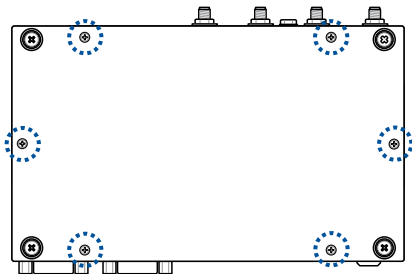
3.3 Installing a nano SIM card (optional)

Your Tinker System comes with one (1) nano SIM card slot.

NOTE: Nano SIM cards are purchased separately.

1. Remove the screw securing the metal slot cover (A), and then remove the cover (B).
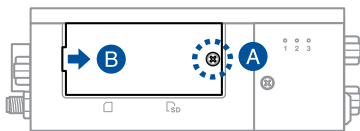
2. Insert your nano SIM card into the nano SIM card slot with the gold contacts facing up. Make sure that the card is pushed all the way into its card slot.
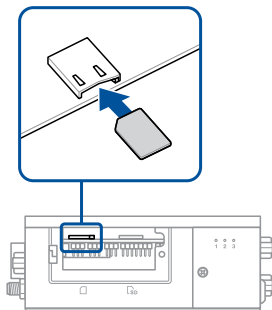
3. Replace the metal slot cover (A), and secure it with the screw removed previously (B).
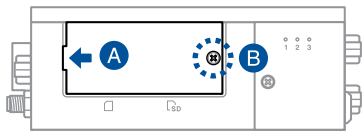
3.4 Installing a microSD card (optional)

Your Tinker System comes with one (1) microSD card slot.

NOTE: The microSD card is purchased separately.

---

1. Remove the one (1) screw securing the slot cover (A), and then remove the cover (B).
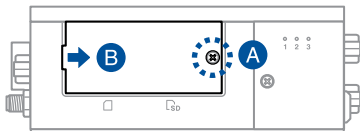
2. Insert your microSD card into the microSD card slot with the gold contacts facing up. Make sure that the card is pushed all the way into the card slot.
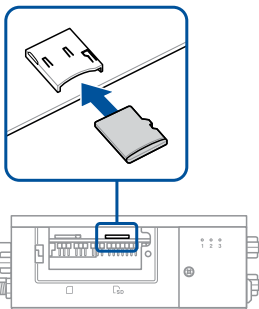
3. Replace the metal slot cover (A), and secure it with the screw removed previously (B).
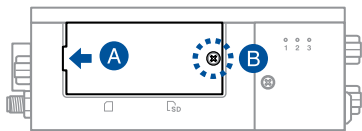
3.5   Installing an M.2 (E-key) module

Your Tinker System comes with an M.2 (E-key) slot that allow you to install an M.2 wireless (Wi-Fi / Bluetooth) module.

To install an wireless module:

1. Remove the screw from the M.2 standoff.

2. Align and insert the wireless card into its slot inside the Tinker System.

3. Gently push down the wireless card on top of the standoff, and then fasten it using the previously removed screw.

NOTE: We recommend using a PH1 screwdriver with a torque of 2.0±0.2 kgf-cm when tightening the screw.

---

4. (optional) Connect the RF cables from the antennas to your wireless card. Make sure that the correct cable is attached to each of the connectors by referring to the illustration on the next page.

WARNING! RF modules are intended for OEM or host integrators only. For availability of system level RF certification, check with your OEM integrator.

NOTE:

- Please refer to the **Installing antennas** section for more information on installing the antennas.

- Connecting antennas to your wireless card may strengthen the wireless signal.

- A soft clicking sound indicates that the antenna has been securely attached on the wireless card.

- RF modules are intended for OEM or host integrators only. For availability of system level RF certification, check with your OEM integrator.

Ant. Jack	Module Connector
ANT. 2	WLAN-MAIN
ANT. 3	WLAN-AUX
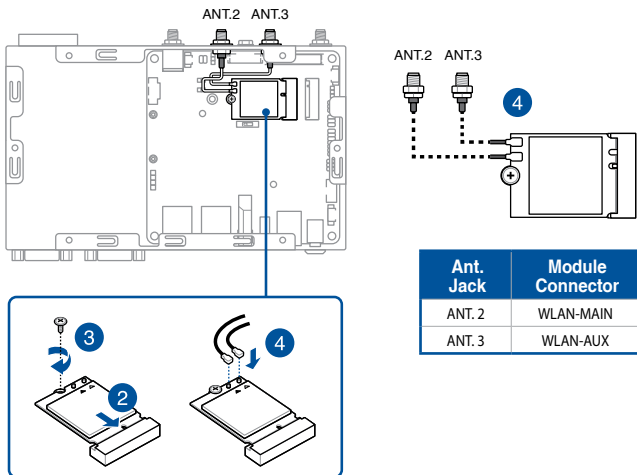
3.6   Installing an M.2 (B-key) module

Your Tinker System comes with an M.2 (B-key) slot that allows you to install an M.2 SSD, M.2 4G LTE, or M.2 5G NR (B-key, supports 3042/3052) module.

To install an M.2 SSD module:

1.   Remove the screw from the standoff.
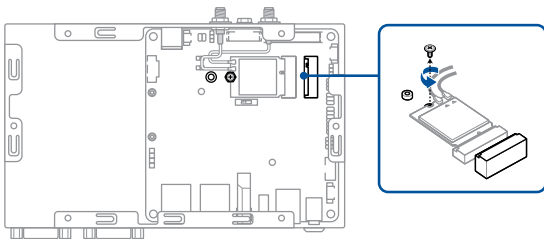
2.   If the standoff is already seated in the right mounting hole to fit your M.2 SSD module, skip to step 4.

3.   (Optional) Unscrew the standoff (A) and install it to a mounting hole that matches the length of your M.2 SSD module (B).

NOTE: We recommend using a PH1/sleeve screwdriver with a torque of 2.0±0.2 kgf-cm when tightening the standoff.

---
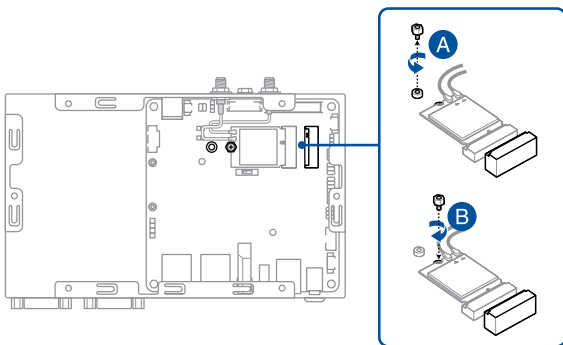
4. Align and insert the M.2 SSD into its slot inside the Tinker System.

5. Gently push down the M.2 SSD on top of the standoff and fasten it using a screw.

NOTE: We recommend using a PH1 screwdriver with a torque of 2.0±0.2 kgf-cm when tightening the screw.
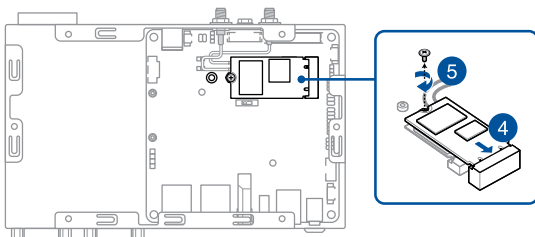
To install a 4G LTE module:

1. Remove the screw from the standoff.

2. If the standoff is already seated in the right mounting hole to fit your 4G LTE module, skip to step 4.

3. (Optional) Unscrew the standoff (A) and install it to a mounting hole that matches the length of your 4G LTE module (B).

    NOTE: We recommend using a PH1/sleeve screwdriver with a torque of 2.0±0.2 kgf-cm when tightening the standoff.

    ---

4. Align and insert the 4G LTE module into its slot inside the Tinker System.

5. Gently push down the 4G LTE module on top of the standoff, and fasten it using a screw.

    NOTE: We recommend using a PH1 screwdriver with a torque of 2.0±0.2 kgf-cm when tightening the screw.

    ---

6. (Optional) Connect the RF cables from the antennas to your module. Make sure that the correct cable is attached to each of the connectors by following chart on the next page.
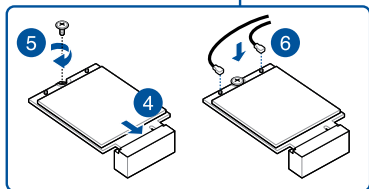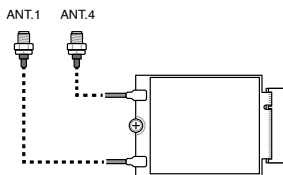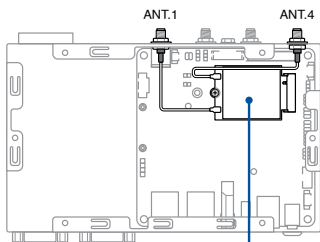
Ant. Jack	Module Connector
ANT. 1	WWAN-AUX
ANT. 4	WWAN-MAIN

To install a 5G NR module:

1. Remove the screw from the standoff.

2. If the standoff is already seated in the right mounting hole to fit your 5G NR module, skip to step 4.

3. (Optional) Unscrew the standoff (A) and install it to a mounting hole that matches the length of your 5G NR module (B).

   NOTE: We recommend using a PH1/sleeve screwdriver with a torque of 2.0±0.2 kgf-cm when tightening the standoff.

4. Align and insert the 5G NR module into its slot inside the Tinker System.

5. Gently push down the 5G NR module on top of the standoff, and fasten it using a screw.

   NOTE: We recommend using a PH1 screwdriver with a torque of 2.0±0.2 kgf-cm when tightening the screw.

6. (Optional) Connect the RF cables from the antennas to your module. Make sure that the correct cable is attached to each of the connectors by following chart on the next page.
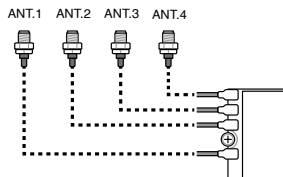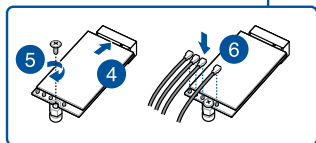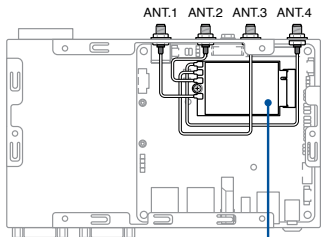
Ant. Jack	Module Connector
ANT. 1	WWAN-AUX
ANT. 2	WWAN-MIMO-MAIN
ANT. 3	WWAN-MIMO-AUX
ANT. 4	WWAN-MAIN

3.7   Installing antennas (optional)

You may install antennas to the four (4) antenna jacks located on the rear panel. The installed antennas can be connected to a 4G LTE or 5G NR module installed in the M.2 (B-key) slot or to a wireless card installed in the M.2 (E-key) Wi-Fi slot.
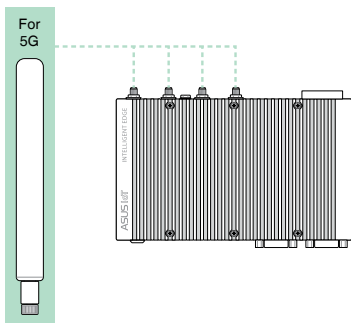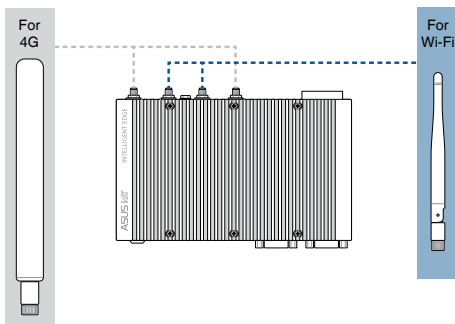
To install an antenna:

1. Remove the bottom cover. Refer to **Removing the bottom cover** for details.

2. Prepare the RF connector and cable.

3. Remove the rubber caps from the antenna holes.

4. Insert the antenna jack end of the RF connector and cable into the antenna hole from within the chassis outwards.
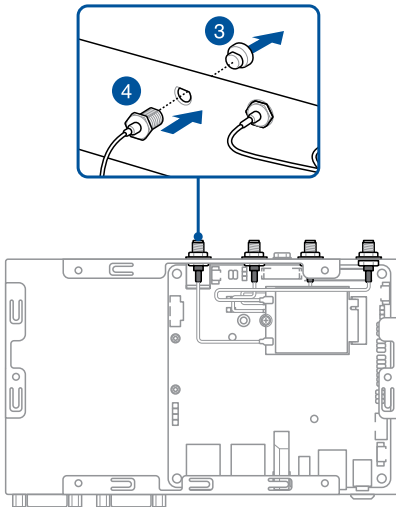
5. Insert the bundled O-ring to the antenna jack (A), then secure the antenna jack using the bundled hex screw (B).
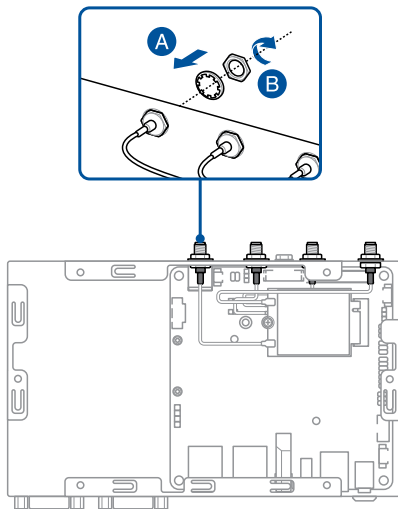
6. Connect the other end of the RF connector and cable to your wireless card (refer to **Installing an M.2 (E-key) module** for details) or to your WWAN card (refer to **Installing an M.2 (B-key) module** for details).

7. Replace the bottom cover. Refer to **Replacing the bottom cover** for details.

8. Screw the external wireless antennas onto their corresponding antenna jacks on the rear panel by turning them in a clockwise direction.

9. Position the antennas for optimal signal reception.

3.8 Installing wall mount brackets (optional)

1. Remove the four (4) rubber feet screws (A), and then remove the rubber feet from them (B).
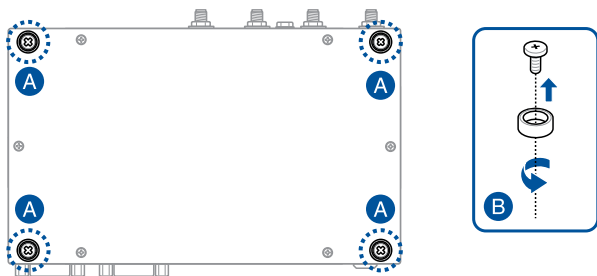
2. Align the wall mount brackets to the rubber feet screw holes, and then secure the wall mount brackets to your Tinker System using the rubber feet screws.
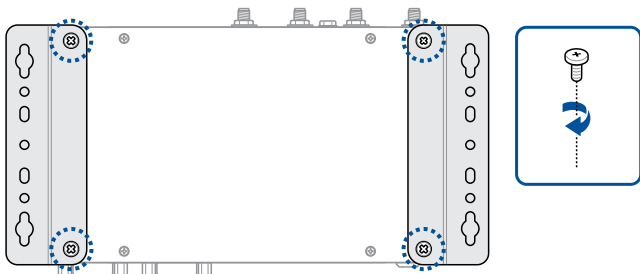
NOTE:

- The wall mount brackets are compatible with most DIN rail clips available on the market.
- The rubber feet screws and wall mount bracket screws are the same screws.

3.9 Mounting to a surface (optional)

You can install your Tinker System to a suitable surface using wall mount brackets.

1. Make sure that the wall mount brackets are already installed. Refer to the section **Installing wall mount brackets** for installation instructions.

2. Secure your Tinker System onto your selected surface using four (4) M3 screws.

Recommended Screw

M3 screw

7.0 mm

8 mm

Length: ≥ 8.0 mm
Diameter: ≥ 7.0 mm
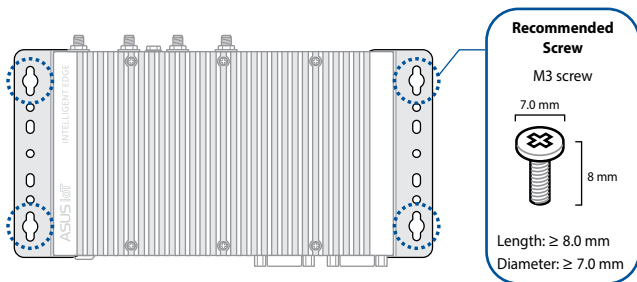
3.10 Installing DIN rail clips (optional)

1. Make sure that the wall mount brackets are already installed. Refer to the section **Installing wall mount brackets** for installation instructions.

2. Align the screw holes on the DIN rail clips to the ones on the wall mount brackets as shown below.
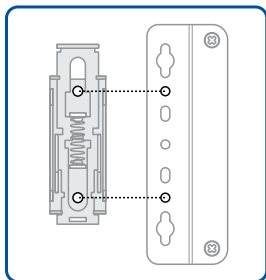
3. Secure the DIN rail clips to the wall mount using the screws bundled with the DIN rail clips.
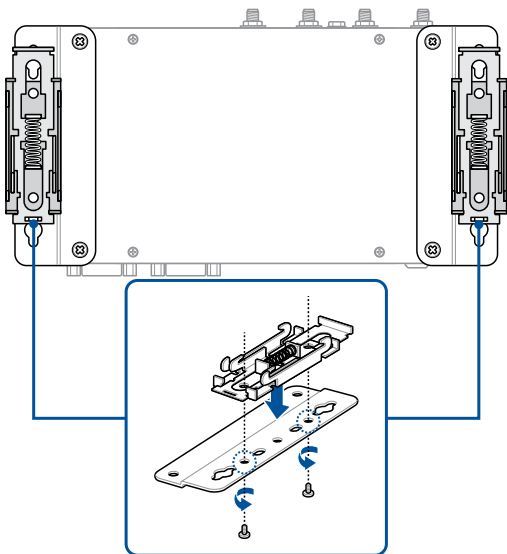
4. Clip the final assembly to a DIN rail by hooking the DIN rail clips to the top of the DIN rail and then pressing down until you hear the clips snap into place.

4

Software installation

4.1　Booting from onboard eMMC

NOTE: Booting from the onboard eMMC is only available for selected models with eMMC.

4.1.1　Requirements

- 1 x USB Type-C® cable with data transfer function

- 1 x 12~24 V, DC 5.5/2.5 power supply*

- 1 x Monitor with HDMI™ cable

- 1 x Keyboard and Mouse set

*　The Power Supply is purchased separately.

4.1.2　Setting up

Follow the steps below for installing and updating the OS image as they are the same.

1. Connect the micro USB OTG port on your Tinker System (refer to the **Front view** section for location) to a host PC using a USB Type-C® cable.

2. Connect the power adapter to your Tinker System.

3. Download the TinkerOS image from the Tinker Board website (https://tinker-board.asus.com/download.html) and burn it into your Tinker System using a third-party ISO software, such as Etcher.

4. After the TinkerOS image is successfully burned, disconnect all cables from your Tinker System.

5. Connect the power supply, keyboard, mouse, and monitor to your Tinker System to boot up.

4.2 Booting from microSD card

4.2.1 Requirements

Before you start setting up your Tinker System, make sure you have the following available:

- 1 x microSD card with at least 8 GB capacity
- 1 x 12~24 V, DC 5.5/2.5 power supply*
- 1 x Monitor with HDMI™ cable
- 1 x Keyboard and Mouse set

* The Power Supply is purchased separately.

> **NOTE:** Make sure to use the bundled power supply, or if you are using another power supply, ensure to use a 12~24 V power supply.

4.2.2 Installing or updating the OS

Follow the steps below for installing and updating the OS image as they are the same.

1. Insert a microSD card into a Windows® PC.

2. Download the TinkerOS image from the Tinker Board website (https://tinker-board.asus.com/download.html) and burn it into the microSD card using a third-party ISO software, such as *Etcher*.

3. Insert the bootable microSD card into your Tinker System, and then connect the power supply, keyboard, mouse, and monitor to boot up.

Appendix

Safety information

Your Tinker System is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

Setting up your system

- Read and follow all instructions in the documentation before you operate your system.
- Do not use this product near water or a heated source.
- Set up the system on a stable surface.
- Peripherals with extended tolerance (such as industrial grade mSATA, and microSD card) will allow this product to be used in environments with ambient temperatures between -20˚C and 60˚C, with adequate airflow.
- The product should be used in environments with an ambient temperature of 60˚C when using the 65W adapter.
- If you use an extension cord, make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.
- This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.
- Restricted Access Area:

  The equipment should only be installed in a Restricted Access Area where both these conditions apply:
  - access can only be gained by skilled or instructed persons who have been instructed about the reasons for the restrictions applied to the area and about any precautions that shall be taken; and
  - access is through the use of a TOOL or lock and key, or other means of security, and is controlled by the authority responsible for the area.
- This device shall not be connected to an Ethernet network with outside plant routing.

Care during use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill water or any other liquids on your system.
- When the system is turned off, a small amount of electrical current still flows. Always unplug the power cord from the power outlets before cleaning the system.
- Use this product with care when operating at full load, as the product, especially the outer casing, may reach elevated temperatures.
- If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
    - The power cord or plug is damaged.
    - Liquid has been spilled into the system.
    - The system does not function properly even if you follow the operating instructions.
    - The system was dropped or the cabinet is damaged.
    - The system performance changes.

Regulatory 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.

FCC RF Caution Statement

WARNING! Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC RF Exposure Information

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels. The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of www.fcc.gov/oet/ea/fccid.

End Product Labeling

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

ISED Radiation Exposure Statement for Canada

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with ISED RF exposure compliance requirements, please avoid direct contact to the transmitting antenna during transmitting. End users must follow the specific operating instructions for satisfying RF exposure compliance.

Operation is subject to the following two conditions:

- This device may not cause interference and
- This device must accept any interference, including interference that may cause undesired operation of the device.

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(A)/NMB-003(A)

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(A)/NMB-003(A)

Wireless Operation Channel for Different Domains

N. America	2.412-2.462 GHz	Ch01 through CH11
Japan	2.412-2.484 GHz	Ch01 through Ch14
Europe ETSI	2.412-2.472 GHz	Ch01 through Ch13

KC: Korea Warning Statement

Class A:
사용자 안내문
이 기기는 업무용 환경에서 사용할 목적으로 적합성평가를 받은 기기로서 가정용 환경에서 사용하는 경우 전파간섭의 우려가 있습니다.

VCCI: Japan Compliance Statement

Class B ITE

この装置は、クラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

VCCI－B

Japan RF Equipment Statement

屋外での使用について

5GHz帯（W52/53）及び6GHz帯（LPI）の屋外での使用は、電波法により禁じられています（法令により許可された場合は除く）（6GHz帯は対応製品のみ）。

法律および規制遵守

本製品は電波法及びこれに基づく命令の定めるところに従い使用してください。日本国外では、その国の法律または規制により、本製品の使用ができないことがあります。このような国では、本製品を運用した結果、罰せられることがありますが、当社は一切責任を負いかねますのでご了承ください。

Japan JATE

本製品は電気通信事業者（移動通信会社、固定通信会社、インターネットプロバイダ等）の通信回線（公衆無線LANを含む）に直接接続することができません。本製品をインターネットに接続する場合は、必ずルーター等を経由し接続してください。

Safety Precautions

Accessories that came with this product have been designed and verified for the use in connection with this product. Never use accessories for other products to prevent the risk of electric shock or fire.

安全上のご注意

付属品は当該専用品です。他の機器には使用しないでください。機器の破損もしくは、火災や感電の原因となることがあります。

Declaration of compliance for product environmental regulation

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 https://esg.asus.com/Compliance.htm for information disclosure based on regulation requirements ASUS is complied with.

EU REACH and Article 33
Complying with the REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals) regulatory framework, we publish the chemical substances in our products at ASUS REACH website at https://esg.asus.com/Compliance.htm

EU RoHS
This product complies with the EU RoHS Directive. For more details, see https://esg.asus.com/Compliance.htm

Japan JIS-C-0950 Material Declarations
Information on Japan RoHS (JIS-C-0950) chemical disclosures is available on https://esg.asus.com/Compliance.htm

India RoHS
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.

Vietnam RoHS
ASUS products sold in Vietnam, on or after September 23, 2011,meet the requirements of the Vietnam Circular 30/2011/TT-BCT.

Các sản phẩm ASUS bán tại Việt Nam, vào ngày 23 tháng 9 năm2011 trở về sau, đều phải đáp ứng các yêu cầu của Thông tư 30/2011/TT-BCT của Việt Nam.

Türkiye RoHS
AEEE Yönetmeliğine Uygundur

ASUS Recycling/Takeback Services
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 https://esg.asus.com/en/Takeback.htm for detailed recycling information in different regions.

Ecodesign Directive
The European Union announced a framework for the setting of ecodesign requirements for energy-related products (2009/125/EC). Specific implementing measures are aimed at improving environmental performance of specific products or across multiple product types. ASUS provides product information at https://esg.asus.com/Compliance.htm.

低功率電波輻射性電機管理辦法

第十二條： 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。

第十四條： 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。

Taiwan NCC Warning Statement

Article 12: Without permission, any company, firm or user shall not alter the frequency, increase the power, or change the characteristic and functions of the original design of the certified lower power frequency electric machinery.

Article 14: The application of lower power frequency electric machineries shall not affect the navigation safety nor interfere alegal communication, if an interference is found, the service will be suspended until improvement is made and theinterference no longer exists.

「產品之限用物質含有情況」之相關資訊，請參考下表：

Taiwan Declaration of Restricted Substances Marking

單元 (Unit)	限用物質及其化學符號 (Restricted substances and its chemical symbols)					
	鉛 Lead (Pb)	汞 Mercury (Hg)	鎘 Cadium (Cd)	六價鉻 Hexavalent chromium (Cr+6)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyls ethers (PBDE)
印刷電路板 及電子組件 PCB	−	○	○	○	○	○
外殼 Chassis	−	○	○	○	○	○
硬碟 Disk drive	−	○	○	○	○	○
散熱設備 Thermal solutions	−	○	○	○	○	○
其他及其 配件 (線材等) Accessories (e.g., cables)	−	○	○	○	○	○

備考 1.“○”係指該項限用物質之百分比含量未超出百分比含量基準值。

備考 2.“−”係指該項限用物質為排除項目。

Note 1   “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.

Note 2   The “−“ indicates that the restricted substance corresponds to the exemption.

UK: The Radio Equipment Regulations 2017 (S.I. 2017/1206)

Simplified UKCA Declaration of Conformity

ASUSTek Computer Inc. hereby declares that this device is in compliance with the essential requirements and other relevant provisions of The Radio Equipment Regulations 2017 (S.I. 2017/1206). Full text of UKCA declaration of conformity is available at https://www.asus.com/support/.

The WiFi operating in the band 5150-5350MHz shall be restricted to indoor use for country listed below:

UK

EU: Radio Equipment Directive (Directive 2014/53/EU)

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/

The WiFi operating in the band 5150-5350MHz shall be restricted to indoor use for countries listed in the table below:

Déclaration simplifiée de conformité de l'UE

ASUSTek Computer Inc. déclare par la présente que cet appareil est conforme aux critères essentiels et autres clauses pertinentes de la directive 2014/53/EU. La déclaration de conformité de l'UE peut être téléchargée à partir du site internet suivant : https://www.asus.com/support/

Dans la plage de fréquence 5150-5350 MHz, le Wi-Fi est restreint à une utilisation en intérieur dans les pays listés dans le tableau ci-dessous:

Vereinfachte EU-Konformitätserklärung

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/

Der WLAN-Betrieb im Band von 5150-5350 MHz ist für die in der unteren Tabelle aufgeführten Länder auf den Innenbereich beschränkt.

Dichiarazione di conformità UE semplificata

ASUSTek Computer Inc. con la presente 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 UE è disponibile all'indirizzo: https://www.asus.com/support/

L'utilizzo della rete Wi-Fi con frequenza compresa nell'intervallo 5150-5350MHz deve essere limitato all'interno degli edifici per i paesi presenti nella seguente tabella:

Упрощенное заявление о соответствии европейской директиве

ASUSTek Computer Inc. заявляет, что устройство соответствует основным требованиям и другим соответствующим условиям директивы 2014/53/EU. Полный текст декларации соответствия ЕС доступен на https://www.asus.com/support/

Работа WiFi в диапазоне частот 5150-5350 должна быть ограничена использованием в помещениях для стран, перечисленных в таблице ниже:

إعلان التوافق المبسط الصادر عن الاتحاد الأوروبي

تقر شركة ASUSTek Computer أن هذا الجهاز يتوافق مع المتطلبات الأساسية والأحكام الأخرى ذات الصلة الخاصة بتوجيه EU/53/2014. يتوفر النص الكامل لإعلان التوافق الصادر عن الاتحاد الأوروبي على:
https://www.asus.com/support/
يجب حصر استخدام WiFi العاملة بـ 5150-5350 ميجا هرتز على الاستخدام المنزلي للبلدان المدرجة بالجدول.

Опростена декларация за съответствие на ЕС

С настоящото ASUSTek Computer Inc. декларира, че това устройство е в съответствие със съществените изисквания и другите приложими постановления на свързаната Директива 2014/53/EC. Пълният текст на ЕС декларация за съвместимост е достъпен на адрес https://www.asus.com/support/

WiFi, работеща в диапазон 5150-5350MHz, трябва да се ограничи до употреба на закрито за страните, посочени в таблицата по-долу:

Declaração de Conformidade UE Simplificada

ASUSTek Computer Inc. declara que este dispositivo está em conformidade com os requisitos essenciais e outras disposições relevantes relacionadas às diretivas 2014/53/UE. O texto completo da declaração de conformidade CE está disponível em https://www.asus.com/support/

O WiFi operando na banda 5150-5350MHz deve ser restrito para uso interno para os países listados na tabela abaixo:

Pojednostavljena EU Izjava o sukladnosti

ASUSTek Computer Inc. ovim izjavljuje da je ovaj uređaj sukladan s bitnim zahtjevima i ostalim odgovarajućim odredbama direktive 2014/53/EU. Cijeli tekst EU izjave o sukladnosti dostupan je na https://www.asus.com/support/

WiFi koji radi na opsegu frekvencija 5150-5350 MHz bit će ograničen na upotrebu u zatvorenom prostoru u zemljama na donjem popisu:

Zjednodušené prohlášení o shodě EU

Společnost ASUSTek Computer Inc. tímto prohlašuje, že toto zařízení splňuje základní požadavky a další příslušná ustanovení směrnice 2014/53/ EU. Plné znění prohlášení o shodě EU je k dispozici na adrese https://www.asus.com/support/

V zemích uvedených v tabulce je provoz sítě Wi-Fi ve frekvenčním rozsahu 5 150 - 5 350 MHz povolen pouze ve vnitřních prostorech:

Forenklet EU-overensstemmelseserklæring

ASUSTeK Computer Inc. erklærer hermed at denne enhed er i overensstemmelse med hovedkravene og øvrige relevante bestemmelser i direktivet 2014/53/EU. Hele EU-overensstemmelseserklæringen kan findes på https://www.asus.com/support/

Wi-Fi, der bruger 5150-5350 MHz skal begrænses til indendørs brug i lande, der er anført i tabellen:

Vereenvoudigd EU-conformiteitsverklaring

ASUSTeK Computer Inc. verklaart hierbij dit apparaat voldoet aan de essentiële vereisten en andere relevante bepalingen van Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring is beschikbaar op https://www.asus.com/support/

De WiFi op 5150-5350MHz zal beperkt zijn tot binnengebruik voor in de tabel vermelde landen:

Lihtsustatud EÜ vastavusdeklaratsioon

Käesolevaga kinnitab ASUSTek Computer Inc, et seade vastab direktiivi 2014/53/EÜ olulistele nõuetele ja teistele asjakohastele sätetele. EL vastavusdeklaratsiooni täistekst on saadaval veebisaidil https://www.asus.com/support/

Sagedusvahemikus 5150-5350 MHz töötava WiFi kasutamine on järgmistes riikides lubatud ainult siseruumides:

Euurooppa - EY:n vaatimustenmukaisuusvakuutus

ASUSTek Computer Inc. ilmoittaa täten, että tämä laite on direktiivin 2014/53/EU olennaisten vaatimusten ja muiden asiaankuuluvien lisäysten mukainen. Koko EY:n vaatimustenmukaisuusvakuutuksen teksti on luettavissa osoitteessa https://www.asus.com/support/

5 150 - 5 350 MHz:in taajuudella toimiva WiFi on rajoitettu sisäkäyttöön taulukossa luetelluissa maissa:

<div dir="rtl">

تبعیت از نسخه ساده شده بیانیه اتحادیه اروپا

Inc Computer ASUSTek در اینجا اعلام می کند که این دستگاه با نیاز های اساسی و سایر مقررات مربوط به بیانیه 2014/53/EU. مطابقت دارد. متن کامل پیروی از این بیانیه اتحادیه اروپا در این آدرس موجود است: https://www.asus.com/support/.

عملکرد 5150-5350 مگاهرتز برای WiFi باید برای استفاده در فضای ساختمان برای کشورهای فهرست شده در جدول، محدود شود.

</div>

Απλοποιημένη Δήλωση Συμμόρφωσης ΕΕ

Διά του παρόντος η ASUSTek Computer Inc. δηλώνει ότι αυτή η συσκευή είναι σύμμορφη με τις βασικές προϋποθέσεις και άλλες σχετικές διατάξεις της Οδηγίας 2014/53/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης της ΕΕ είναι διαθέσιμο στη διεύθυνση https://www.asus.com/support/

Το WiFi που λειτουργεί στη ζώνη 5150-5350MHz περιορίζεται για χρήση σε εσωτερικούς χώρους για τις χώρες που αναφέρονται στον παρακάτω πίνακα:

<div dir="rtl">

הצהרת תאימות רגולטורית מקוצרת עבור האיחוד אירופי

Inc Computer ASUSTek. מצהירה בזאת כי מכשיר זה תואם לדירישות החיוניות ולשאר הסעיפים הרלוונטיים של תקנה 2014/53/ EU. ניתן לקרוא את הנוסח המלא של הצהרת התאימות הרגולטורית עבור האיחוד האירופי בכתובת: https://www.asus.com/support/

יש להגביל רשתות Wi-Fi הפועלות ברצועות התדרים 5150-5350MHz לשימוש בתוך מבנים סגורים בארצות המפורטות ברשימה הבאה:

</div>

Egyszerűsített EU megfelelőségi nyilatkozat

Az ASUSTek Computer Inc. ezennel kijelenti, hogy ez az eszköz megfelel az 2014/53/EU sz. irányelv alapvető követelményeinek és egyéb vonatkozó rendelkezéseinek. Az EU megfelelőségi nyilatkozat teljes szövegét a következő weboldalon tekintheti meg: https://www.asus.com/support/

Az 5150-5350 MHz-es sávban működő Wi-Fi-t beltéri használatra kell korlátozni az alábbi táblázatban felsorolt országokban:

Pernyataan Kesesuaian UE yang Disederhanakan

ASUSTeK Computer Inc. dengan ini menyatakan bahwa perangkat ini memenuhi persyaratan utama dan ketentuan relevan lainnya yang terdapat pada Petunjuk 2014/53/EU. Teks lengkap pernyataan kesesuaian EU tersedia di: https://www.asus.com/support/

WiFi yang Beroperasi pada 5150-5350 MHz akan terbatas untuk penggunaan dalam ruangan di negara yang tercantum dalam tabel

Vienkāršota ES atbilstības paziņojums

ASUSTeK Computer Inc. ar šo paziņo, ka šī ierīce atbilst Direktīvas 2014/53/ES būtiskajām prasībām un citiem citiem saistošajiem nosacījumiem. Pilns ES atbilstības paziņojuma teksts pieejams šeit: https://www.asus.com/support/

Wi-Fi darbība 5150–5350 MHz ir jāierobežo lietošanai telpās valstīs, kuras norādītas tālāk.

Supaprastinta ES atitikties deklaracija

Šiame dokumente bendrovė „ASUSTek Computer Inc." pareiškia, kad šis prietaisas atitinka pagrindinius reikalavimus ir kitas susijusias Direktyvos 2014/53/ES nuostatas. Visas ES atitikties deklaracijos tekstas pateikiamas čia: https://www.asus.com/support/

Toliau nurodytose šalyse „WiFi" ryšiu, veikiančiu 5 150–5 350 MHz dažnio juostoje, galima naudotis tik patalpose:

Forenklet EU-samsvarserklæring

ASUSTeK Computer Inc. erklærer herved 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/

Wi-Fi-området 5150–5350 MHz skal begrenses til innendørs bruk for landene som er oppført i tabellen:

Uproszczona deklaracja zgodności UE

Firma ASUSTek Computer Inc. niniejszym oświadcza, że urządzenie to jest zgodne z zasadniczymi wymogami i innymi właściwymi postanowieniami dyrektywy 2014/53/EU. Pełny tekst deklaracji zgodności UE jest dostępny pod adresem https://www.asus.com/support/

W krajach wymienionych w tabeli działanie sieci Wi-Fi w paśmie 5150–5350 MHz powinno być ograniczone wyłącznie do pomieszczeń:

Declaração de Conformidade Simplificada da UE

A ASUSTek Computer Inc. declara que este dispositivo está em conformidade com os requisitos essenciais e outras disposições relevantes da Diretiva 2014/53/UE. O texto integral da declaração de conformidade da UE está disponível em https://www.asus.com/support/

A utilização das frequências WiFi de 5150 a 5350MHz está restrita a ambientes interiores nos países apresentados na tabela:

Declarație de conformitate UE, versiune simplificată

Prin prezenta, ASUSTek Computer Inc. declară că acest dispozitiv este în conformitate cu reglementările esențiale și cu celelalte prevederi relevante ale Directivei 2014/53/UE. Textul complet al declarației de conformitate UE este disponibil la adresa https://www.asus.com/support/

Pentru țările listate în tabelul de mai jos, rețelele WiFi care funcționează în banda de frecvență de 5.150-5.350 MHz trebuie utilizate doar în interior:

Pojednostavljena Deklaracija o usaglašenosti EU

ASUSTek Computer Inc. ovim izjavljuje da je ovaj uređaj usaglašen sa osnovnim zahtevima i drugim relevantnim odredbama Direktive 2014/53/EU. Ceo tekst Deklaracije o usaglašenosti EU dostupan je na lokaciji https://www.asus.com/support/

WiFi koji radi u frekventnom opsegu od 5150 MHz do 5350 MHz ograničen je isključivo na upotrebu u zatvorenom prostoru za zemlje navedene u tabeli ispod:

Zjednodušené vyhlásenie o zhode platné pre EÚ

Spoločnosť ASUSTek Computer Inc. týmto vyhlasuje, že toto zariadenie je v súlade so základnými požiadavkami a ďalšími príslušnými ustanoveniami smernice č. 2014/53/EÚ. Plné znenie vyhlásenia o zhode pre EÚ je k dispozícii na lokalite https://www.asus.com/support/

Činnosť WiFi v pásme 5150 - 5350 MHz bude obmedzená na použitie vo vnútornom prostredí pre krajiny uvedené v tabuľke nižšie:

Poenostavljena izjava EU o skladnosti

ASUSTek Computer Inc. tukaj 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/

WiFi, ki deluje v pasovnem območju 5150–5350 MHz, mora biti v državah, navedenih v spodnjem seznamu, omejen na notranjo uporabo:

Declaración de conformidad simplificada para la UE

Por la presente, ASUSTek Computer Inc. declara que este dispositivo cumple los requisitos básicos y otras disposiciones pertinentes de la directiva 2014/53/EU. En https://www.asus.com/support/ está disponible el texto completo de la declaración de conformidad para la UE.

La conexión WiFi con una frecuencia de funcionamiento de 5150-5350 MHz se restringirá al uso en interiores para los países enumerados en la tabla:

Förenklad EU-försäkran om överensstämmelse

ASUSTek Computer Inc. deklarerar härmed att denna enhet överensstämmer med de grundläggande kraven och andra relevanta bestämmelser i direktiv 2014/53/EU. Fullständig text av EU-försäkran om överensstämmelse finns på https://www.asus.com/support/

WiFi som använder 5150-5350 MHz kommer att begränsas för användning inomhus i de länder som anges i tabellen:

ประกาศเกี่ยวกับความสอดคล้องของสหภาพยุโรปแบบย่อ

ASUSTek Computer Inc. ขอประกาศในที่นี้ว่าอุปกรณ์นี้มีความสอดคล้องกับความต้องการที่จำเป็นและเงื่อนไขที่เกี่ยวข้องอื่น ๆ ของบทบัญญัติข้อกำหนด 2014/53/EU เนื้อหาที่สมบูรณ์ของประกาศความสอดคล้องกับ EU มีอยู่ที่ https://www.asus.com/support/

การทำงานของ WiFi ที่ 5150-5350MHz ถูกจำกัดให้ใช้ในอาคารสำหรับประเทศที่แสดงในตาราง

Basitleştirilmiş AB Uyumluluk Bildirimi

ASUSTek Computer Inc., bu aygıtın 2014/53/EU Yönergesinin temel gereksinimlerine ve diğer ilgili hükümlerine uygun olduğunu bildirir. AB uygunluk bildiriminin tam metni şu adreste bulunabilir: https://www.asus.com/support/

5150-5350 MHz arasındaki WiFi çalışması, tabloda listelenen ülkeler için iç mekan kullanımıyla kısıtlanacaktır.

Спрощена декларація про відповідність нормам ЄС

ASUSTek Computer Inc. заявляє, що цей пристрій відповідає основним вимогам та іншим відповідним вимогам Директиви 2014 / 53 / EU. Повний текст декларації відповідності нормам ЄС доступний на https://www.asus.com/support/

Робота Wi-Fi на частоті 5150-5350 МГц обмежується використанням у приміщенні для країн, поданих у таблиці нижче:

AT	BE	BG	CZ	DK	EE	FR
DE	IS	IE	IT	EL	ES	CY
LV	LI	LT	LU	HU	MT	NL
NO	PL	PT	RO	SI	SK	TR
FI	SE	CH	HR	UK (NI)		

HDMI Trademark Notice

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

RF Module Warning Statement

RF modules are intended for OEM or host integrators only. For availability of system level RF certification, check with your OEM integrator.

DO NOT throw the device 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, electronic equipment, and mercury-containing button cell battery) should not be placed in municipal waste. Check local technical support services for product recycling.

France sorting and recycling information

FR

Cet appareil
et ses accessoires
se recyclent

À DÉPOSER
EN MAGASIN

À DÉPOSER
EN DÉCHÈTERIE

OU

Points de collecte sur www.quefairedemesdechets.fr
Privilégiez la réparation ou le don de votre appareil !

Service and Support

Visit our multi-language website at https://www.asus.com/support/.