

# **PE1000N Series**Embedded Computer

**User Manual** 



#### E21995 Second Edition May 2023

#### COPYRIGHT INFORMATION

No part of this manual, including the products and software described in it, may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form or by any means, except documentation kept by the purchaser for backup purposes, without the express written permission of ASUSTEK COMPUTER INC. ("ASUS").

ASUS PROVIDES THIS MANUAL "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL ASUS, ITS DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF PROFITS, LOSS OF BUSINESS, LOSS OF USE OR DATA, INTERRUPTION OF BUSINESS AND THE LIKE), EVEN IF ASUS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES ARISING FROM ANY DEFECT OR ERROR IN THIS MANUAL OR PRODUICT.

Products and corporate names appearing in this manual may or may not be registered trademarks or copyrights of their respective companies, and are used only for identification or explanation and to the owners' benefit without intent to infrince.

SPECIFICATIONS AND INFORMATION CONTAINED IN THIS MANUAL ARE FURNISHED FOR INFORMATIONAL USE ONLY, AND ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE, AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY ASUS. ASUS ASSUMES NO RESPONSIBILITY OR LIABILITY FOR ANY ERRORS OR INACCURACIES THAT MAY APPEAR IN THIS MANUAL, INCLUDING THE PRODUCTS AND SOFTWARE DESCRIBED IN IT.

Copyright © 2023 ASUSTeK COMPUTER INC. All Rights Reserved.

#### LIMITATION OF LIABILITY

Circumstances may arise where because of a default on ASUS' part or other liability, you are entitled to recover damages from ASUS. In each such instance, regardless of the basis on which you are entitled to claim damages from ASUS, ASUS is liable for no more than damages for bodily injury (including death) and damage to real property and tangible personal property; or any other actual and direct damages resulted from omission or failure of performing legal duties under this Warranty Statement, up to the listed contract price of each product.

ASUS will only be responsible for or indemnify you for loss, damages or claims based in contract, tort or infringement under this Warranty Statement.

This limit also applies to ASUS' suppliers and its reseller. It is the maximum for which ASUS, its suppliers, and your reseller are collectively responsible.

UNDER NO CIRCUMSTANCES IS ASUS LIABLE FOR ANY OF THE FOLLOWING: (1) THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES; (2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR (3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS OR SAVINGS), EVEN IF ASUS, ITS SUPPLIERS OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY.

#### SERVICE AND SUPPORT

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

#### **Contents**

About this manual5				
Conventions used in this manual				
Pack	age contents	7		
Cha	apter 1: Getting to know your Embedded Com	outer		
1.1	Features	10		
	1.1.1 Front view	10		
	1.1.2 Rear view			
	1.1.3 Left view			
	1.1.4 Right view			
1.2	Motherboard Overview			
	1.2.1 Motherboard layout			
	1.2.2 Internal connectors	23		
Cha	apter 2: Using your Embedded Computer			
2.1	Getting started			
	2.1.1 Connect the AC power adapter to your Embedded Computer			
	2.1.2 Connect a display panel to your Embedded Computer			
	2.1.3 Connect the USB cable from keyboard or mouse			
	2.1.4 Turn on your Embedded Computer			
2.2	Turning off your Embedded Computer	33		
Cha	apter 3: Upgrading your Embedded Computer			
3.1	Removing the bottom cover	36		
3.2	Replacing the bottom cover	37		
3.3	Installing a nano SIM card (optional)	38		
3.4	3			
3.5				
3.6	-			
3.7				
3.8				
3.9	Installing wall mount brackets (optional)	51		

3.10	) Mounting to a surface (optional)	52
3.11	I Installing DIN rail clips (optional)	53
3.12	2 Installing the terminal block (optional)	54
Cha	apter 4: Setting up your Embedded Compu	ter
4.1	Requirements	57
4.2	Installing or Updating the OS	57
Аp	pendix	
Safe	ety information	60
	Setting up your system	60
	Care during use	61
Reg	ulatory notices	63
Serv	vice and Support	75

#### **About this manual**

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

#### **Chapter 1: Getting to know your Embedded Computer**

This chapter details the hardware components of your Embedded Computer.

#### **Chapter 2: Using your Embedded Computer**

This chapter provides you with information on using your Embedded Computer.

#### **Chapter 3: Upgrading your Embedded Computer**

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

#### **Chapter 4: Setting up your Embedded Computer**

This chapter will guide you in setting up your Embedded Computer for the first time.

#### **Appendix**

This section includes notices and safety statements your Embedded Computer.

#### Conventions used in this manual

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

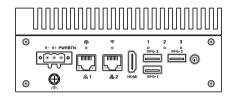
**IMPORTANT!** This message contains vital information that must be followed to complete a task.

**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 Embedded Computer's data and components.

#### **Package contents**

Your Embedded Computer package contains the following items:



PE1000N Series



Terminal blocks



I/O port dust covers

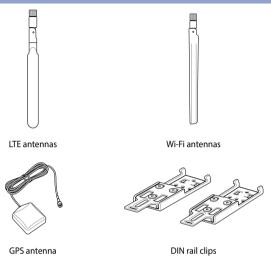


Terminal block power adapter



Wall mount kit with two (2) brackets

#### **Optional items**



#### NOTE:

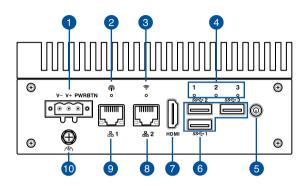
- Some bundled accessories may vary depending on the model. For details on these accessories, refer to their respective user manuals.
- Illustrations of the device and accessories are for reference only.
   Actual product specifications may vary depending on the model.
- If the device or its components 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 Embedded Computer

#### 1.1 Features

#### 1.1.1 Front view





#### **Power input jack**

The supplied terminal block power adapter converts AC power to DC power for use with this jack. Power supplied through this jack supplies power to the Embedded Computer.

**WARNING!** The power adapter may become warm to hot when in use. Do not cover the adapter and keep it away from your body.





#### **Cellular Signal LED**

The cellular signal LED indicates whether the Embedded Computer is connected to a cellular network.

#### Wi-Fi Signal LED

The Wi-Fi signal LED indicates whether the Embedded Computer is connected to a wireless network.

- 1 Serial (COM/CAN) Signal LED
  - 2 Each numbered LED indicates whether a device that is
  - 3 connected to the corresponding serial (COM/CAN) port on the back panel is communicating through the serial bus.

#### 6 Power button

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

- 6 SS←1 USB 3.2 Gen 1 port
  - SSC+2 The USB 3.2 Gen 1 (Universal Serial Bus) port provides a sSC+3 transfer rate up to 5 Gbit/s and a maximum of 5V/0.9A output per port.
- 7 HDMI HDMI™ port

The integrated 19-pin HDMI™ (High Definition Multimedia Interface) 2.0 port with a receptacle connector can support resolutions up to 3840 x 2160 @ 60 Hz on external display devices.

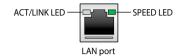
图 品1 LAN port

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

9 品2 LAN port
The 8-nin RI-45 LAN port sun

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

#### **LAN port LED indications**



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		

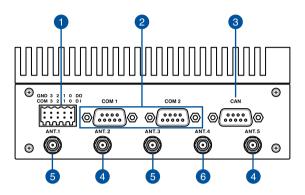




#### **Functional Earth Ground**

The Functional Earth Ground provides you with a grounding point.

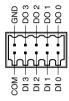
#### 1.1.2 Rear view



DO DI

#### **Isolated DIO connector**

The Isolated Digital Input/Output (DIO) connector provides electrical isolation (up to 2500 VDC) of digital input and output signals, which allow micro controllers to detect and output logic states. The high voltage protection can be used in industrial level uses. Please refer to the illustration below for the Isolated DIO connector's pin definitions.



Signal	Specifications		
	I/O Mode	DI	
Digital	Sensor Type	Dry contact Wet contact (NPN or PNP)	
Input	Dry Contact	On: short to GND Off: open	
	Wet Contact	On: 10~30 Vdc Off: 0~3 Vdc	
	I/O Mode	DO	
Digital	Sensor Type	Sink	
Output	Voltage	24 Vdc nominal, open collector to 30 Vdc	
	Current Rating	200 mA per channel	
	Isolation	IEC 60950-1:2005 + A1:2009+A2:2013: Hi-pot 2.5 kV	
Protection	ESD	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV	
	EFT	IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV	
	Surge	IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV	



#### Serial (COM) connector

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 table below for the pin definitions of the different COM connectors.

NOTE: Default set to RS-232.



Pin	RS-232	RS-422	RS-485
1	NA	TX-	D-
2	RXD	TX+	D+
3	TXD	RX+	NA
4	NA	RX-	NA
5	GND	GND	GND
6	NA	NA	NA
7	RTS#	NA	NA
8	CTS#	NA	NA
9	NA	NA	NA

15

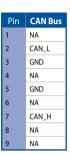


CAN

#### Serial (CAN) connector (on selected models)

The 9-pin CAN Bus serial (CAN) connector allows you to connect devices with a CAN interface, such as an electronic control unit (ECU). Please refer to the table below for the pin definitions of the CAN Bus connector.





- 4 ANT. 2 LTE wireless antenna jack
  - ANT.5 The LTE antenna jack allows you to connect a wireless antenna to enhance LTE signals.

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

- 6 ANT.1 WLAN Wireless antenna jack
  - **ANT.3** The Wi-Fi wireless antenna jack allows you to connect a wireless antenna for Wi-Fi signals.

**NOTE:** The Wi-Fi wireless antenna is optional and may not come bundled.

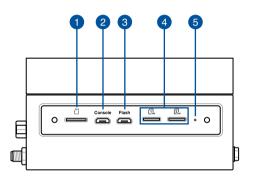
6 ANT.2 GPS Wireless antenna jack

The GPS wireless antenna jack allows you to connect a wireless antenna for GPS signals.

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

#### 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**.





#### MicroSD card slot

This slot allows you to insert a microSD card.

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

Console

#### Debug console port (on selected models)

This micro USB port allows you to connect a computer to the integrated USB to UART debug console (baud rate 115200) using a micro USB cable. Once connected to a computer, you can start debugging without the need for additional equipment.

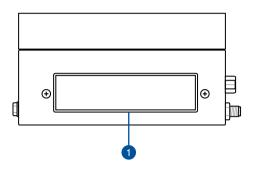
3 Flash Flash (USB 2.0 micro USB) port

This flash (micro USB) port allows you to connect to a host computer to flash the OS image.

- Nano SIM card slot
  - This slot allows you to insert a Nano SIM card.
- Force recovery pinhole

The hard reset pinhole allows you to put your Embedded Computer into Force Recovery Mode to update or flash the OS.

#### 1.1.4 Right view



#### Expansion slot

This slot allows you to install an ASUS Expansion Module (AEM) for additional I/O ports.

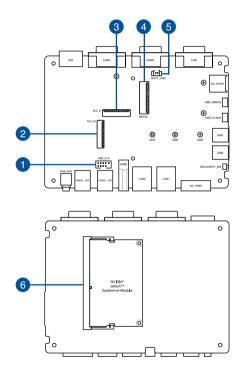
**NOTE:** Contact your ASUS sales representative for more information on AEMs.

#### 1.2 Motherboard Overview

#### 1.2.1 Motherboard layout

The PE1000N Series is an Embedded Computer based on a 3.5" motherboard. Refer to the table for the page numbers of the numbered items.

#### 3.5" motherboard

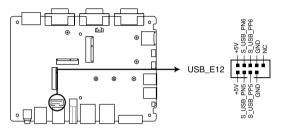


La	yout contents	Page	
3.5" motherboard			
1.	USB 2.0 connector	23	
2.	M.2 (M-key) slot	23	
3.	M.2 Wi-Fi (E-key) slot	24	
4.	mPCle slot	24	
5.	RTC Battery connector	25	
6.	SO-DIMM slot	25	

#### 1.2.2 Internal connectors

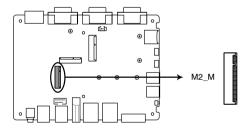
#### 1. USB 2.0 connector

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



#### 2. M.2 (M-key) slot

The M.2 slot allows you to install an M-key (PCIe, I2C and SMBus), type 2242/2260/2280 M.2 device, such as an M.2 SSD module.

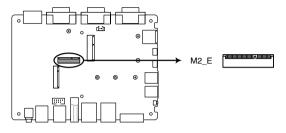


#### NOTE:

- For models with Jetson Nano™ System-on-Module (SOM), the M.2 (E-key) and M.2 (M-key) slots share the same PCle bus.
- · The M.2 SSD module is purchased separately.

#### 3. M.2 Wi-Fi (E-key) slot

The M.2 Wi-Fi slot allows you to install an E-key (PCle, USB 2.0, I2C and PCM), type 2230 M.2 Wi-Fi module.

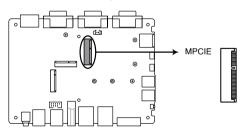


#### NOTE:

- For models with Jetson Nano™ SOM, the M.2 (E-key) and M.2 (M-key) slots share the same PCle bus.
- The M.2 Wi-Fi module is purchased separately.

#### 4. Mini PCle slot

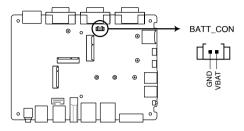
The Mini PCle slot allows you to install an LTE mPCle (USB 2.0) module.



**NOTE:** The LTE mPCle module is purchased separately.

#### 5. RTC Battery connector

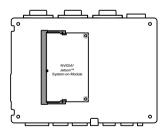
The RTC Battery connector allows you to connect a lithium CMOS battery.



#### 6. SO-DIMM slot

The SO-DIMM slot can support the following SOMs:

- NVIDIA® Jetson Nano™
- NVIDIA® Jetson™TX2 NX
- NVIDIA® Jetson Xavier™ NX



**NOTE:** Your Embedded Computer comes pre-installed with a System-on-Module (SOM). The actual SOM installed may vary, depending on your specifications.

## 2

## Using your Embedded Computer

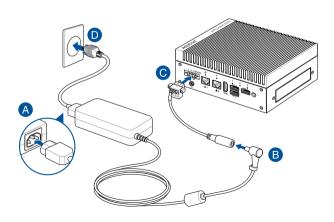
#### 2.1 Getting started

#### 2.1.1 Connect the AC power adapter to your Embedded Computer

To connect the AC power adapter to your Embedded Computer:

- A. Connect the power cord to the AC power adapter.
- B. Connect the AC power adapter to the terminal block power adapter.
- Connect the 2-pin terminal block DC power connector into your Embedded Computer's power (DC) input.
- D. 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 your region.



#### 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 Embedded Computer.

65 W Power adapter Input voltage: 100-240 Vac

Input frequency: 50-60 Hz

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

Rated output voltage: 12-24 Vdc

System

Rated voltage: 12-24 Vdc

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

- We strongly recommend that you use a grounded wall socket while using your Embedded Computer.
- The socket outlet must be easily accessible and near your Embedded Computer.
- To disconnect your Embedded Computer from its main power supply, unplug your Embedded Computer 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 Embedded Computer

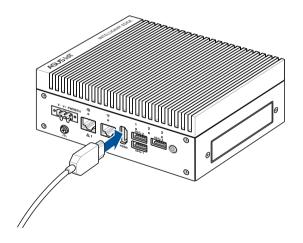
You can connect a display panel or projector to your Embedded Computer that has the following connector(s):

HDMI<sup>™</sup> connector

#### To connect a display panel to your Embedded Computer:

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

Connect display via HDMI™ port



### 2.1.3 Connect the USB cable from keyboard or mouse

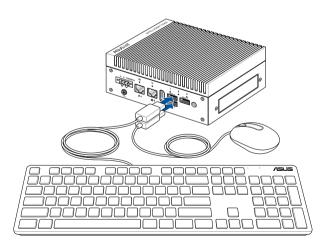
You can connect generally any USB keyboard and mouse to your Embedded Computer. You can also connect a USB dongle for a wireless keyboard and mouse set.

#### To connect a keyboard and mouse to your Embedded Computer:

Connect the USB cable from your keyboard and mouse to any of the USB ports of your Embedded Computer.

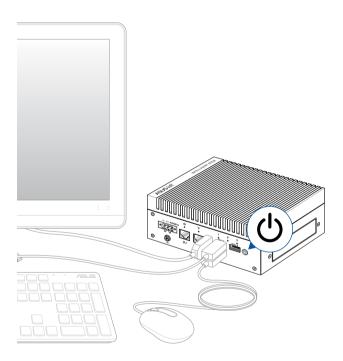
#### NOTE:

- The keyboard varies with country and/or region.
- The keyboard and mouse are purchased separately.



#### 2.1.4 Turn on your Embedded Computer

Press the power button to turn on your Embedded Computer if it does not power on automatically when you connect it to a power source.



## 2.2 Turning off your Embedded Computer

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


3

Upgrading your Embedded Computer

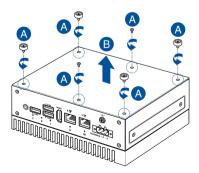
#### 3.1 Removing the bottom cover

#### 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 Embedded Computer and allow it to cool for at least 10 minutes before performing any installation/ uninstallation process.

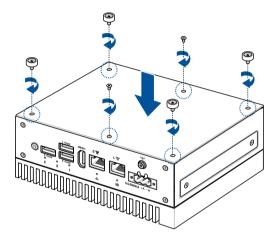
**NOTE:** The illustrations in this section are for reference only. The slots may vary depending on model.

- Turn off your Embedded Computer, and then disconnect all cables and peripherals.
- Place the Embedded Computer on a flat stable surface with its top side facing down.
- 3. Remove the screws from the bottom cover (A), and then remove the bottom cover (B).



# 3.2 Replacing the bottom cover

 Align the screw holes on the bottom cover with those on your Embedded Computer's chassis. Secure the bottom cover using the screws removed previously.

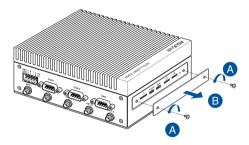


# 3.3 Installing a nano SIM card (optional)

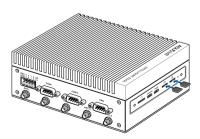
Your Embedded Computer comes with two (2) nano SIM card slots.

**NOTE:** Nano SIM cards are purchased separately.

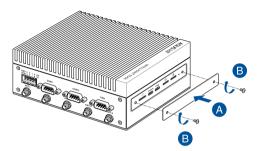
 Remove the two (2) screws securing the metal slot cover (A), and then remove the cover (B).



Insert your nano SIM card(s) into the nano SIM card slot(s) with the gold contacts facing up. Make sure that each card is pushed all the way into its card slot.



3. Replace the metal slot cover (A), and secure it with the screws removed previously (B).

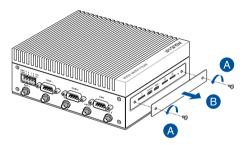


# 3.4 Installing a microSD card (optional)

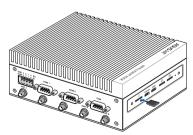
Your Embedded Computer comes with one (1) microSD card slot.

**NOTE:** The microSD card is purchased separately.

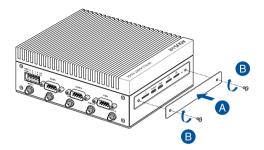
1. Remove the two (2) screws securing the slot cover (A), and then remove the cover (B).



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 screws removed previously (B).



# 3.5 Installing an M.2 (E-key) module

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

**NOTE:** For models with Jetson Nano™ SOM, the M.2 (E-key) and M.2 (M-key) slots share the same PCle bus.

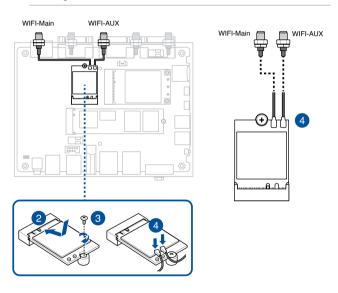
## To install an wireless module:

- 1. Remove the screw from the M.2 standoff.
- Align and insert the wireless card into its slot inside the Embedded Computer.
- 3. Gently push down the wireless card on top of the standoff, and then fasten it using the previously removed screw.
- (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.



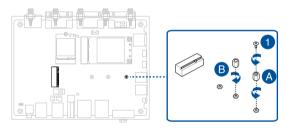
# 3.6 Installing an M.2 (M-key) module

Your Embedded Computer comes with an M.2 (M-key) slot that allows you to install an M.2 SSD (M-key, supports 2242/2260/2280 PCle x4) module.

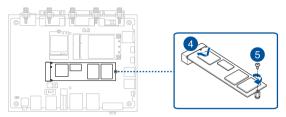
**NOTE:** For models with Jetson Nano $^{\text{m}}$  SOM, the M.2 (E-key) and M.2 (M-key) slots share the same PCle bus.

## To install an M.2 SSD module:

- 1. Remove the screw from the standoff.
- If the standoff is already seated in the right mounting hole to fit your M.2 SSD module, skip to step 4.
- 3. Unscrew the standoff (A) and install it to a mounting hole that matches the length of your M.2 SSD module (B).



- 4. Align and insert the M.2 SSD into its slot inside the Embedded Computer.
- 5. Gently push down the M.2 SSD on top of the standoff and fasten it using a screw.



45

# 3.7 Installing an mPCIe module

Your Embedded Computer comes with an mPCle slot that allows you to install an LTE mPCle module.

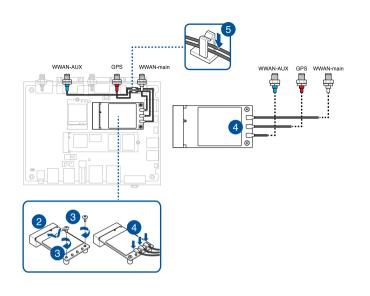
## To install an LTE mPCle module:

- 1. Remove the two (2) screws from the standoffs.
- 2. Align and insert the LTE module into the slot.
- Press down, and then secure it in place using the two (2) screws previously removed.
- (optional) Connect the RF cables from the antennas to your LTE module. Ensure that the correct cable is attached to each of the connectors by following the color coding chart on the next page.
- 5. (optional) Use the cable clip to organize the cables.

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

## NOTE:

- Refer to Installing antennas for more information on installing the antennas.
- Connecting antennas to your LTE module may strengthen the signal.
- A soft clicking sound indicates that the antenna has been securely attached on the LTE module.
- RF modules are intended for OEM or host integrators only. For availability of system level RF certification, check with your OEM integrator.



Antenna Color Coding			
Band Color	Antenna Type		
White	WWAN-Main		
Blue	WWAN-AUX		
Red	GPS		

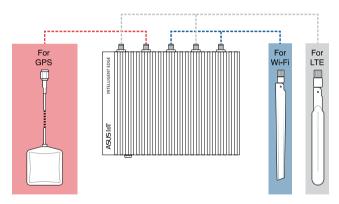
# 3.8 Installing antennas (optional)

You may install antennas to the five (5) antenna jacks located on the rear panel. The installed antennas can be connected to an LTE card installed in the mPCle/mSATA slot or to a wireless card installed in the M.2 Wi-Fi slot.

## NOTE:

- It is recommended that you install the antennas as shown in the diagram below.
- LTE antennas are flatter and slightly longer than the Wi-Fi and GPS antennas.

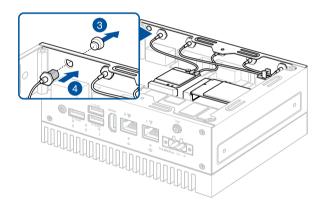
# **Antenna jack locations**



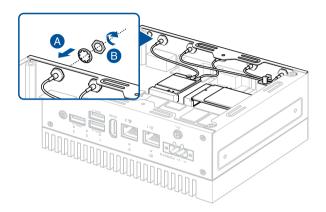
## To install an antenna:

**NOTE:** If your Embedded Computer came pre-installed with wireless card antenna jacks, skip to step 8.

- 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.
- Insert the antenna jack end of the RF connector and cable into the antenna jack from within the chassis outwards.



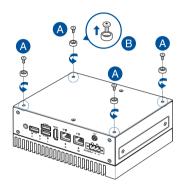
5. Insert the bundled O-ring to the antenna jack (A), then secure the antenna jack using the bundled hex screw (B).



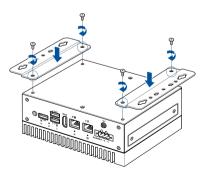
- Connect the other end of the RF connector and cable to your wireless card (refer to Installing a wireless card to the M.2 slot for details) or to your WWAN card (refer to Installing an mPCle module to the Mini PCle/mSATA slot for details).
- Replace the bottom cover. Refer to Replacing the bottom cover for details.
- 8. Screw the external Wi-Fi 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.

# 3.9 Installing wall mount brackets (optional)

1. Remove the four (4) rubber feet screws (A), and then remove the rubber feet from them (B).



Align the wall mount brackets to the rubber feet screw holes, and then secure the wall mount brackets to your Embedded Computer using the rubber feet screws.



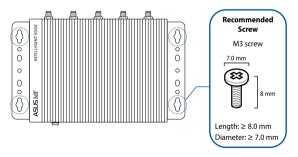
## NOTE:

- 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.

# 3.10 Mounting to a surface (optional)

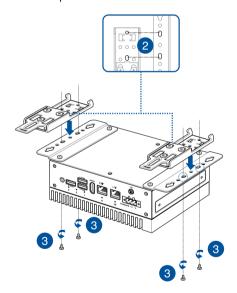
You can install your Embedded Computer to a suitable surface using wall mount brackets.

- Make sure that the wall mount brackets are already installed. Refer to the section **Installing wall mount brackets** for installation instructions.
- Secure your Embedded Computer onto your selected surface using four (4) M3 screws.



# 3.11 Installing DIN rail clips (optional)

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



 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.

# 3.12 Installing the terminal block (optional)

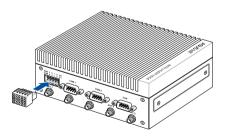
You may install terminal blocks into the **Isolated DIO connector**, which allow you to support additional devices with serial ports or micro controllers by referring to the pin definitions and connecting cables to the slots on the terminal blocks as needed.

**IMPORTANT!** Connect only one (1) cable to a slot on the terminal block.

## NOTE:

- The terminal block is purchased separately.
- Please refer to Rear view for the location and pin definitions of the Isolated DIO connector.

## Installing a terminal block to the Isolated DIO connector



4

Setting up your Embedded Computer

# 4.1 Requirements

Before you start setting up your Embedded Computer, make sure you have the following available:

- 1 x micro USB cable with data transfer function (to connect a host PC running on Linux OS to your Embedded Computer's flash port)
- 1 x Power supply
- 1 x Monitor with HDMI™ cable
- 1 x Keyboard and Mouse set

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

# 4.2 Installing or Updating the OS

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

**NOTE:** Some systems may come pre-installed with an OS. If you are not sure, contact your ASUS sales representative.

- Completely power off your Embedded Computer. It must be powered off and not in suspend or sleep mode.
- Disconnect power cord and adapter and all cables connected to your Embedded Computer.
- Connect the micro USB plug on the USB cable to the flash (micro USB) port on your Embedded Computer (refer to the Left view section for the location of the port) and the other end to an available USB port on the host PC.

- Insert the tip of an unfolded paper clip into the force recovery pinhole (refer to the Left view section for the location), press in, and hold.
- While holding the paper clip in place, connect the power adapter, which should automatically power on your Embedded Computer. If it does not, press the power button.
- Wait three (3) seconds, and then release the paper clip from the force recovery pinhole. You should now be in force recovery mode and ready to flash the OS image.
- 7. Get the OS image from ASUS, and then unzip the image file to your host PC.
- Run the flash script or command file to start the flash process. The flash process should take a few minutes. Once the flash is completed, your Embedded Computer will reboot and you should be booted to OS.

**NOTE:** Refer to the readme file in the unzipped image folder for details on other items, such as re-flash, recovery, and troubleshooting.

**Appendix** 

# Safety information

Your Embedded Computer 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 a 0.1 m/s air flow
- 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 20cm between the radiator and your body.
- Restricted Access Location:
  - The equipment should only be installed in a Restricted Access Area where both these conditions apply:
  - access can only be gained by USERS who have been instructed about the reasons for the restrictions applied to the location 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 location.
- 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 may reach temperatures of up to 60°C and the outer casing may reach temperatures of up to 73°C.
- 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.

# **Lithium-Ion Battery Warning**

**CAUTION**: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

# **NO DISASSEMBLY**

# The warranty does not apply to the products that have been disassembled by users



**DO NOT** throw the Embedded Computer 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.

# **Regulatory notices**

## **COATING NOTICE**

**IMPORTANT!** To provide electrical insulation and maintain electrical safety, a coating is applied to insulate the device except on the areas where the I/O ports are located.

## **Federal Communications Commission Statement**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- · This device may not cause harmful interference, and
- 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 A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**IMPORTANT!** Outdoor operations in the 5.15~5.25 GHz band is prohibited. This device has no Ad-hoc capability for 5250~5350 and 5470~5725 MHz.

**CAUTION!** 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:

## For JWW6051

Contains FCC ID: W23-JWW6051 and Contains IC: 24633-JWW6051

## For RTL8822CE

Contains FCC ID: TX2-RTL8822CE and Contains IC: 6317A-RTL8822CE

# **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 A ITE**

この装置は、クラスA機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI-A

# **Japan RF Equipment Statement**

## 屋外での使用について

本製品は、5GHz帯域での通信に対応しています。電波法の定めにより 5.2GHz、5.3GHz帯域の電波は屋外で使用が禁じられています。

## 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 <a href="https://csr.asus.com/Compliance.htm">https://csr.asus.com/Compliance.htm</a> 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 <a href="https://csr.asus.com/english/REACH.htm">https://csr.asus.com/english/REACH.htm</a>

### **EU RoHS**

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

## **Japan JIS-C-0950 Material Declarations**

Information on Japan RoHS (JIS-C-0950) chemical disclosures is available on https://csr.asus.com/english/article.aspx?id=19

## 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 <a href="https://csr.asus.com/english/Takeback.htm">https://csr.asus.com/english/Takeback.htm</a> for detailed recycling information in different regions.

## **Ecodesign Directive**

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 on the CSR website. The further information could be found at <a href="https://csr.asus.com/english/article.aspx?id=1555">https://csr.asus.com/english/article.aspx?id=1555</a>.

# 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.

# 甲類警語

警告使用者:此為甲類資訊技術設備,於居住環境中使用時,可能會造成射頻擾動,在此種情況下,使用者會被要求採取某些適當的對策。

## **Taiwan BSMI Class A Notice**

This product is Class A. In a domestic environment, this product may cause radio interference. You may be required to take adequate measures.

# 「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**

	限用物質及其化學符號 (Restricted substances and its chemical symbols)					
單元	鉛	汞	鎘	六價鉻	多溴聯苯	多溴二苯醚
(Unit)	Lead (Pb)	Mercury (Hg)	Cadium (Cd)	Hexavalent chromium (Cr+6)	Polybrominated biphenyls (PBB)	Polybrominated diphenyls ethers (PBDE)
印刷電路板 及電子組件 PCB	_	0	0	0	0	0
外殼 Chassis	-	0	0	0	0	0
硬碟 Disk drive	_	0	0	0	0	0
散熱設備 Thermal solutions	_	0	0	0	0	0
其他及其 配件 (線材等) Accessories (e.g., cables)	_	0	0	0	0	0

備考 1. "〇" 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. "-" 係指該頂限用物質為排除頂目。

Note 1 "O" 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.J. 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:



### UKCA RF Output table (The Radio Equipment Regulations 2017)

Model: JWW6051

Function	Frequency	Maximum Output Power (EIRP)
	2400 - 2483.5 MHz	17.95 dBm
WiFi	5150 - 5350 MHz	18.76 dBm
	5470 - 5725 MHz	18.46 dBm
Bluetooth	2400 - 2483.5 MHz	6.52 dBm

<sup>\*</sup> Receiver category 1

## UKCA RF Output table (The Radio Equipment Regulations 2017)

Model: RTL8822CE

Francisco.	F	Manipus Outrot Barrey (FIRE)
Function	Frequency	Maximum Output Power (EIRP)
	2412 - 2472 MHz	19 dBm
WiFi	5150 - 5350 MHz	20 dBm
	5470 - 5725 MHz	20 dBm
Bluetooth	2402 - 2480 MHz	15 dBm

<sup>\*</sup> Receiver category 1

# 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 <a href="https://www.asus.com/support/">https://www.asus.com/support/</a>.

The WIFI operating in the hald be 150-5350MHz shall be restricted to indoor use for countries listed in the halbe helpow:

### 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 2011 4/53/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 direttia 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 sequente tabella:

### Упрощенное заявление о соответствии европейской директиве

ASUSTek Computer Inc. заявляет, что устройство соответствует основным требованиям и другим соответствующим условиям директивы 2014/53/ЕU. Полный текст декларации соответствия EC доступен на <a href="https://www.asus.com/support/">https://www.asus.com/support/</a>

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

تقر شركة ASUSTek Computer أن هذا الجهاؤ بتوافق مع المنطلبات الأساسية والأحكام الأخرى ذات الصلة الخاصة بتوجيه 2014/53/EU. يتوفر النص الكامل لإعلان القول الصدار على الاتحاد الأوروبي علم: https://www.asus.com/support/

يجب حصر استخدام WiFi العاملة بـ 5150-5150 ميجا هر تز على الاستخدام المنز لي 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/ЕС. 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 relacionada 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 <u>https://www.asus.com/support/</u>

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/FU. Hele EU-overensstemmelseserklæringen kan findes på <a href="https://www.asus.com/support/">https://www.asus.com/support/</a> WF-II, 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 dat dit apparaat voldoet aan de essentiële vereisten en andere relevante bepalingen van Richtlijn 2014/53/EU volledige tekst van de EU-conformiteitsverklaring is beschikbaro op <a href="https://www.asus.com/support/">https://www.asus.com/support/</a>
De WiFi op 1510-5350MHz zal beperkt zijn tot binnenephuik 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 <u>https://www.asus.com/support/</u>

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

### Eurooppa - 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:

تبعیت از نسخه ساده شده بیانیه اتحادیه اروپا

ASUSTek Computer Inc 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 بیروی از این بیانیه اتحادیه اروپا در این آدرس موجود است:

/https://www.asus.com/support/ عبلکا د 5150-5350 مگاهر کژا برای WiFi باد برای استفاده در افضای داخل ساختمان برای کشار های فیر ست شده در حدل، محد داشاد

### Απλοποιημένη Δήλωση Συμμόρφωσης ΕΕ

Διά του παρόντος η ASUSTek Computer Inc. δηλώνει ότι αυτή η συσκευή είναι σύμμορφη με τις βασικές προϋποθέσεις και άλλες οχετικές 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 παρακότω πίγακα:

#### הצהרת תאימות רגולטורית מקוצרת עבור האיחוד אירופי

ASUSTek Computer Inc. מצהירה בזאת כי מכשיר זה תואם לדרישות החיוניות ולשאר הסעיפים הרלוונטיים של תקנה /2014/53 DB. נימן לקרו את הנוסח ממלא של הצהרת התאימות הרגולטורית עבור האיחוד האירופי בכתובת: https://www.asus.com/supoort/

יש להגביל רשתות Wi-Fi הפועלות ברצועת התדרים 5150-5350MHz לשימוש בתור מבנים סגורים בארצות המפורטות ברשימה

הראה:

#### Egyszerűsített EU megfelelőségi nyilatkozat

Az ÁSUSTek 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 kesesualan EU tersedia di: https://www.asus.com/suporda

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

#### 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 iāierobežo 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/E5 nuostatas. Visas ES attilkties deklaracijos tekstas pateiklamas 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: <a href="https://www.asus.com/support/">https://www.asus.com/support/</a> WEFI-området 5150-5350 MHz vkal hereneses til innendars hut for landene som er onoført i talender.

## 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:

#### Declaratie 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 <u>https://www.asus.com/support/</u> 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:

#### Ziednodušené vyhlásenie o zhode platné pre EÚ

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

Činnosť WiFi v pásme 5150 - 5350 MHz bude obmedzená na použítie 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 relevantnimii 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 <a href="https://www.asus.com/support/">https://www.asus.com/support/</a> 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 hittps://www.asus.com/support/

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

### ประกาศเกี่ยวกับความสอดคล้องของสหภาพยโรปแบบย่อ

ASUSTek Computer Inc. ขอประกาศในที่นิ้วาอปกรณ์นี้มีความสอดคล้องกับความ

ด้องการที่จำเป็นและเงื่อนใขที่เกี่ยวข้องอื่น ๆ ของบทบัญญัติข้อกำหนด 2014/53/EU เนื้อหาที่สมบูรณ์ของประกาศความ สอดคล้องกับ EU มีอยู่ที่ <u>https://www.asus.com/support/</u>

การทำงานของ WiFi ที่ 5150-5350MHz ถกจำกัดให้ใช้ในอาคารสำหรับประเทศที่แสดงในดาราง

### Basitlestirilmis AB Uvumluluk Bildirimi

ASUSTek Computer Inc., bu aygıtın 2014/53/EU Yönergesinin temel gereksinimlerine ve diğer ilgili hükümlerine uygun olduğunu bildirir. AB uygunluk bildiririninin tam metin ju adreste bulunabilir: <a href="https://www.asus.com/support/">https://www.asus.com/support/</a> 15150-3530 MHz arasındaki Wife Talsması, tabloda listelenen ülkeler inin ic mekân 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 / В U. 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)	

### CE RED RF Output table (Directive 2014/53/EU)

Model: JWW6051

Function Frequency		Maximum Output Power (EIRP)		
	2400 - 2483.5 MHz	17.95 dBm		
WiFi	5150 - 5350 MHz	18.76 dBm		
	5470 - 5725 MHz	18.46 dBm		
Bluetooth	2400 - 2483.5 MHz	6.52 dBm		

<sup>\*</sup> Receiver category 1

#### CE RED RF Output table (Directive 2014/53/EU)

Model: RTL8822CE

Function	Frequency	Maximum Output Power (EIRP)
	2412 - 2472 MHz	19 dBm
WiFi	5150 - 5350 MHz	20 dBm
	5470 - 5725 MHz	20 dBm
Bluetooth	2402 - 2480 MHz	15 dBm

<sup>\*</sup> Receiver category 1

# **Service and Support**

Visit our multi-language website at <a href="https://www.asus.com/support/">https://www.asus.com/support/</a>.

