Chapter 1

# Service Overview

*Carefully read through this chapter for a look at various components of E420 before performing any service and repair.*

To provide the best service and support for E420 we have provided below information for technicians from distributors and resellers to perform the complete E420 disassembly and assembly. But before performing the procedures, please be sure to read through the overview in this chapter.

The following chapter includes:

- E420 Overview
- HDD
- Memory Module
- WLAN Module
- Main Board
- Thermal Fan
- Battery

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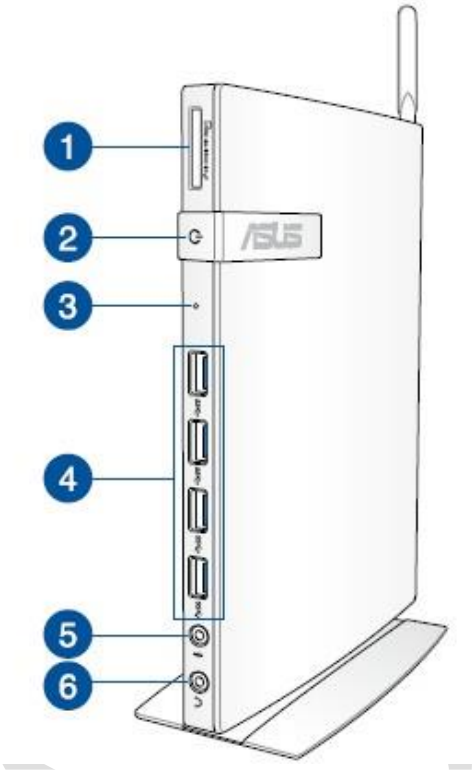
## E420 Overview

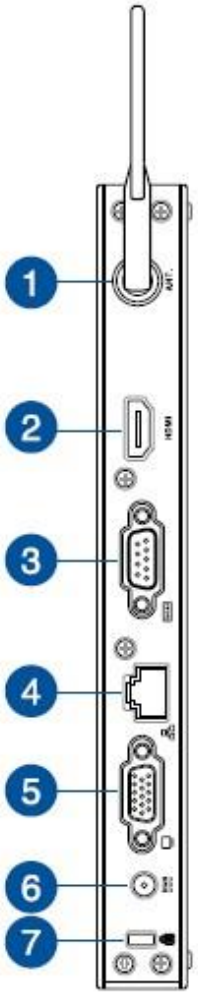
The illustrations below show the E420 overview from rear panel view. Most of the parts will be discussed in this manual.

### Front panel




1. Memory card slot
2. Power Button
3. BIOS key
4. USB 3.1 Gen 1 port
5. Microphone jack
6. Headphone jack

## Rear panel




1. Wireless antenna jack
2. HDMI port
3. Serial(COM) connector
4. LAN(RJ-45) port
5. VGA Port
6. Power input
7. Kensington security slot

COMPONENTS

# Components

The illustrations below show the components of E420.

HDD

## HDD

The illustration below shows HDD.

MEMORY MODULE

## Memory Module

The illustration below shows the Memory Module.

WLAN MODULE

## WLAN Module

The illustration below shows the WLAN Module.

MAIN BOARD

## Main Board

The illustration below shows the Main Board.

THERMAL FAN

## Thermal Fan

The illustration below shows the Thermal Fan.

BATTERY

## Battery

The illustration below shows the Battery.

Chapter 2

# Disassembly (Assembly) Procedure

*Please follow the information provided in this section to perform the complete disassembly procedure of E420. Be sure to use proper tools described below.*

ASUS E420 consists of various modules. This chapter describes the procedure for E420 disassembly and assembly. In addition, the detailed disassembly procedure of individual modules will be provided for your

The disassembly procedure consists of the following steps:

- Precautions and Tools
- Power Off
- Bottom Case
- Memory Module
- WLAN Card
- HDD Module
- Thermal Module
- The Cover
- The RNG ASM
- The BRKT
- The WLAN Cable
- The Battery

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**Assembly Procedure**

Please read the document from end to beginning, and pay special attention to the assembly notice in the yellow frame.

# Precautions and Tools

Please pay special attention to the cautions below to prevent any damage to the VM45 and also please be sure to select the appropriate tools described in this section to perform any services desired.

Before you perform any service and or repair on the VM45, please follow the steps below first.

1. Be sure that the VM45 is powered down.

2. Disconnect the AC plug from the VM45.

3. Remove all rings, watches and any other metal objects from your hands.

4. Always wear a ground strap on your hand to protect the VM45 from static discharge.

5. Please refer to “ANSI ESD S20.20” about ESD protection measure.

6.Put disassembled top case and bottom case in the PE BAG to avoid any damages.

7. Environment temperature is 20-30 ℃ and humidity is 40% - 70%.

## Appropriate Tools

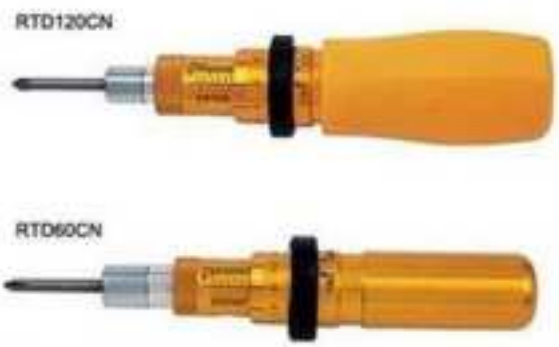
The illustrations below show the appropriate tools that should be used for the service and repair.

## Cross Screwdriver

According to different screw specifications, please choose appropriate screwdriver and head. The photos below are for your reference only.

Use a cross screwdriver to fasten remove screws.⊕

The cross screwdriver below can make torque adjustment.



Plastic Blade (PN: 20LT0-0005O000)

Tweezers

Use a pair of tweezers to remove/insert flexible cables.

Thickness gauge (PN: 20LT0-0002J000)

Thickness compass specification 0.05mm-1.5mm. Use it to measure the gap.

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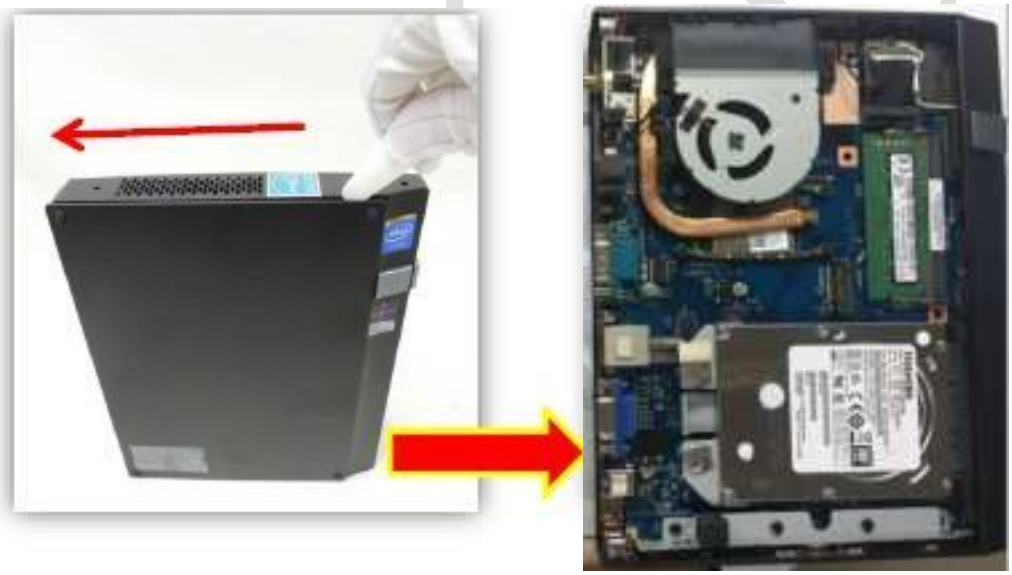
## Power Off

1: Remove the power cable by pulling it from the arrow side.

## Bottom Case

1: Remove 6 Screws (M2.5*5) from case.

2: Separate the cases by pushing the upper case to the right and the lower case to the left.



## Remove the Memory Module

1: Memory Card.

2. Push the slot latch on both sides.

3. Grip with both hands，and extraction the memory.

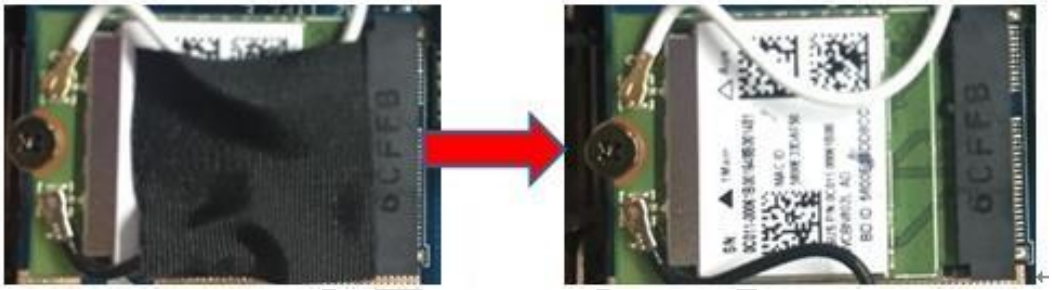
Parts:

- DDR4 2400 8G *1

## Remove the WLAN Card

1: WLAN Card.

2: Take off the ACETATE TAPE.



3: Disconnect the RF Cable and remove the screw (M2*4).

4: Remove the WLAN Card.

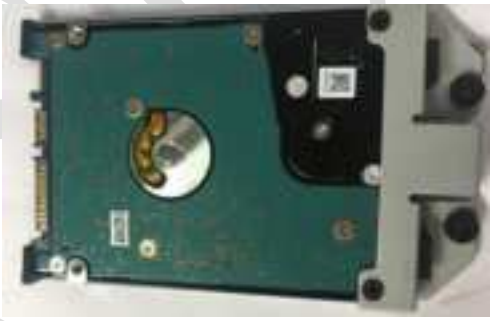
## Remove the HDD.

1: The HDD

2: Remove 2 AL FOIL FOR SSD BKT.

3: Remove 2 screws (M2.5*8) from BRKT.

4: Disconnect the FFC from HDD.



3: Remove 2 screws from HDD and remove the BRKT.

## Remove the Thermal Module

1: The Thermal Module.

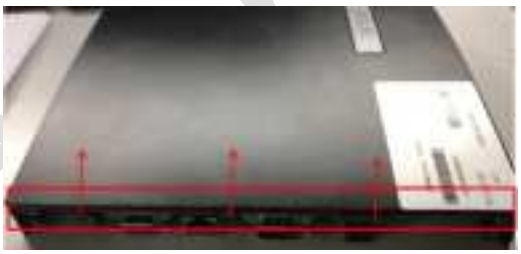
2: Remove 6 screws (M2*4) and disconnect the cable.

3: Remove the thermal module.

## Remove the Cover

1: Remove 6 screws (M2.5*6L) from the main board.

2: Separate the cover by lifting it up from the rear side.



## Remove the RNG ASM

1: Remove 1 screw (M2.5*6) from Main Board (back view).

2: Open the plastic tabs on both sides,

3: Remove the RNG ASM.

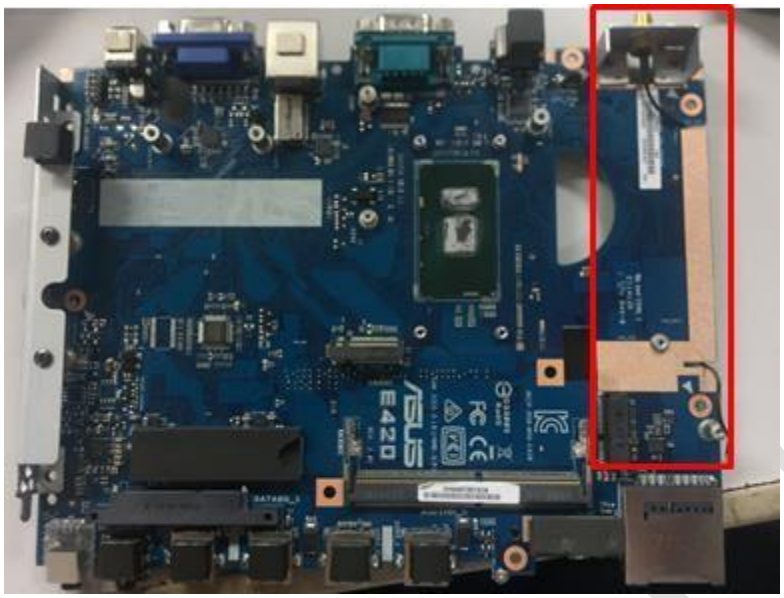
## Remove the BRKT

1: The BRKT.

2: Remove 2 screws (M2.5*6) and then remove the BRKT.

## Remove the WLAN cable

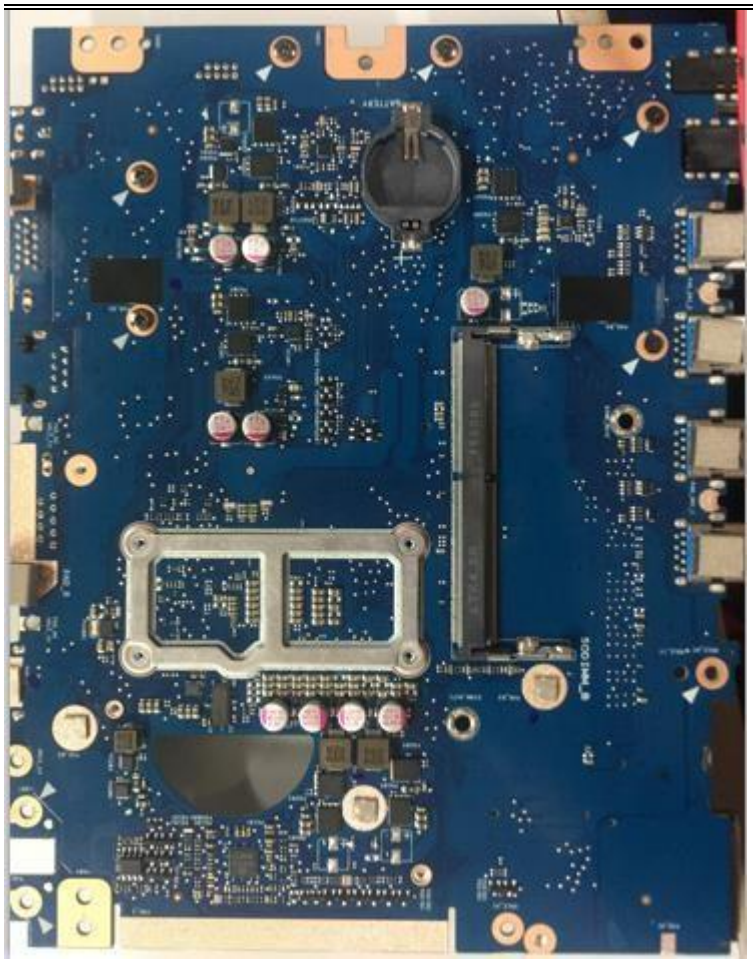
1: The WLAN cable.



2: Remove 2 screws (M2.5*6) a and the GASKET.

3: Remove the WLAN Cable.

## Remove the Battery

Remove the Battery by pushing the battery.

After finishing all above steps, main board is left as follows.