



Home » RUSAVTOMATIKA » rusavtomatika IFC-BOX-NS52 14th Generation Core Ultra Network

Security Server User Manual 72

### rusavtomatika IFC-BOX-NS52 14th Generation Core Ultra Network Security Server



#### Contents [ hide ]

- 1 Other Model
- 2 Product Introduction
- 3 Equipment Connection
- 4 Motherboard Interface Definition
- 5 Bios Settings
- 6 Daily Use And Maintenance
- 7 Common Faults And Troubleshooting Methods Of Equipment
- 8 Documents / Resources
  - 8.1 References

#### **Other Model**



In order to ensure your personal safety and avoid property damage, you must pay attention to the tips in this manual. Tips related to property damage do not carry warning triangles. Warning tips are shown below according to the risk level from high to low.



Indicates that failure to take appropriate action may result in irreparable damage to the machine.

# nay attention to

Indicates that failure to pay attention to the corresponding prompt may result in undesirable results or states.

The products/systems covered by this document are only allowed to be operated by qualified personnel who meet the requirements of the work.

Its operation must be in accordance with the accompanying documentation, especially

the safety and warning instructions. Qualified personnel can detect the risks of this product/system and avoid possible hazards due to relevant training and experience.

# **M** warn

Our products are only permitted for use as specified in the catalog and related technical documents. If you wish to use products and components from other companies, approval and permission from us are required. Proper transportation, storage, assembly, fitting, installation, commissioning, operation, and maintenance are prerequisites for safe and normal product operation. The required environmental conditions must be ensured. Attention should be paid to the instructions provided in the relevant documents.

#### **Disclaimer**

The company reserves the right to change this manual, and will not give further notice when the product is subsequently changed. The company shall not be responsible for any direct, indirect, intentional or unintentional damage and hidden dangers caused by improper installation and use.

Before ordering products, please ask the dealer to understand in detail whether the product performance meets your needs.

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## **Warranty Terms**

The product warranty period is three years. If the user has other requirements, the contract signed by both parties shall prevail.

## **Product Introduction**

IFC-BOX-NS52 is a network security server computer, which uses the 14th generation Core Ultra series processor, onboard TPM2.0 security encryption, supports Windows 10, Windows 11, Linux and other operating systems, and supports M.2 and 2.5 inch hard disk positions, which is very convenient to use.

The whole machine is formed by full aluminum alloy mold, with simple structure, good dustproof, heat dissipation, anti-vibration and EMC performance, high system reliability, strong environmental adaptability.

# **Equipment Connection**

# **Precautions before connection**



Peripheral devices that are connected or built in shall not be connected to devices with opposite polarity.



This device can only be operated on a grounded power network. It is prohibited to operate on an ungrounded or impedance grounded power network.

# **M** warn

The rated voltage of the equipment used must conform to the power characteristics of this product.

# nay attention to

Only approved peripheral devices suitable for industrial applications can be connected. When the machine is running, hot-plug I/O modules (USB) can be connected. I/O devices without hot-plug function can only be connected after the device is disconnected from power.

# Connect the device to the power supply

The steps to connect the device to the power su	diagrammatic sketch
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Connect the DC 12V power adapter to the powe r input interface ①, and then press the power sw itch button on the front panel of the device. The device starts up and the blue power light is on.

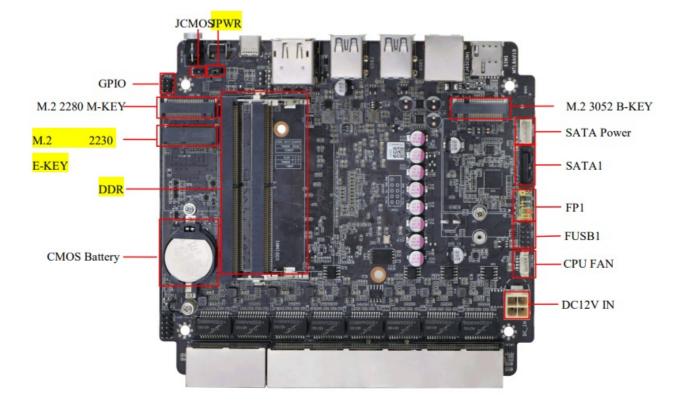




The on/off button signal will not cut off the PC power supply!

# **Motherboard Interface Definition**



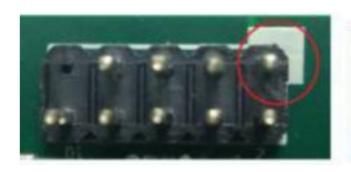


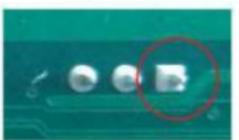


**Note:** The above location map may be different from your motherboard layout for reference only.

Note: The identification method of the first pin 1PIN on the motherboard is as follows:

1. There is a white bold silk printing mark or arrow mark; 2 The pins seen on the back of the motherboard are square holes.





# FP1

Signal name	pin	pin	Signal name
HDD LED +	1	2	PWR LED +
HDD LED –	3	4	PWR LED –
Reset SW –	5	6	Power SW +
Reset SW +	7	8	Power SW –
	9	10	

# F USB1

Signal name	pin	pin	Signal name
VCC	1	2	VCC
USB Data –	3	4	USB Data –
USB Data +	5	6	USB Data +
GND	7	8	GND
	9	10	

# JCMOS1

pin	Signal name
-----	-------------

1-2	Clear CMOS

# SATA1

pin	Signal name
1	GND
2	SATA TXP
3	SATA TXN
4	GND
5	SATA RXP
6	SATA RXN
7	GND

### JPWR1

pin	Signal name
1-2	NC
2-3	AUTO-ON

# **SATAPWR**

pin	Signal name
1	+5V
2	GND

3	GND
4	+12V

#### **CPU FAN1**

pin	Signal name
1	GND
2	VCC +12V
3	FG (speed measurement signal)
4	PWM

#### GPI01

Signal name	pin	pin	Signal name
+5V	1	2	GND
GPIO 56	3	4	GPIO 57
GPIO 60	5	6	GPIO 61



The internal wiring of the machine has been installed, and the wire plug and screw have been fixed with glue. Please do not disassemble the motherboard or jump the wire at will, so as to avoid damage to the motherboard.

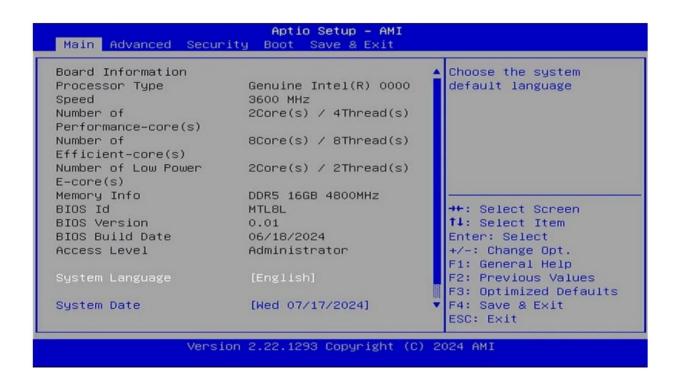
# **Bios Settings**

#### **BIOS** brief introduction

BIOS (Basic Input Output System, Basic Input and Output System) stores the most critical programs for basic input and output, self-check upon startup, and system boot-

up. It can read and write specific system settings from the CMOS. Its primary function is to provide the lowest-level and most direct hardware configuration and control for the computer. Since product BIOS updates and optimizations are not scheduled, the settings interface may vary slightly; the following interface is for reference only.

The BIOS Settings menu is divided into the following options (please consult customer service for specific BIOS Settings):



After the device is started, press "Delete" to enter the BOIS setting interface.

Main: BIOS information and date and time.

Advanced: BIOS advanced menu Settings.

**Chipset:** Chipset Settings. **Security:** Security Settings.

**Boot:** Boot options Settings.

Save & Exit: Save and exit the BIOS Settings.

## Power on and start the device Settings

"Advanced" to "ACPI Settings" to "Restore On AC Power Loss", as shown in the figure below.



### **Restore on AC Power loss Function description:**

**Power Off:** After the device is connected to 12V power supply, press the power button to start up.

**Power On:** The device will automatically start up after the 12V power supply is connected.

**Last State:** After the equipment is connected to 12V power supply, it will be powered on or not according to the status value of the last equipment.

#### pay attention to:

If JPWR1 is set to AUTO-ON (2-3), the BIOS is not effective, and the main board setting is set as the power-on start state;

If JPWR1 is set to NC (1-2), the BIOS setting is correct.

## Set the timing of startup

"Advanced"  $\rightarrow$  "ACPI Settings"  $\rightarrow$  "RTC Wakeup"  $\rightarrow$  "Fixed. Time" See figure below.

```
Aptio Setup - AMI
      Advanced
                                                    Enable or disable
ACPI Settings
                                                    System wakeup on rtc
Enable ACPI Auto
                        [Disabled]
                                                    alarm event. Select
Configuration
                                                    FixedTime, system will
                                                    wake on the
Enable Hibernation [Enabled]
ACPI Sleep State [Suspend]
                                                    day::hr::min::sec
ACPI Sleep State
                         [Suspend Disabled]
                                                    specified. Select
Restore On AC Power
                        [Power Off]
                                                    DynamicTime , System
Loss
Wake On Lan
                         [Enabled]
                                                    →+: Select Screen
                                                    ↑↓: Select Item
Wakeup day of month
Wakeup hour
                         0
                                                    Enter: Select
                                                    +/-: Change Opt.
Wakeup minute
Wakeup seconds
                                                    F1: General Help
Watchdog Mode
                         [Disabled]
                                                    F2: Previous Values
                                                    F3: Optimized Defaults
                                                    F4: Save & Exit
                                                    ESC: Exit
                 Version 2.22.1293 Copyright (C) 2024 AMI
```

#### **RTC Wake Up Function description:**

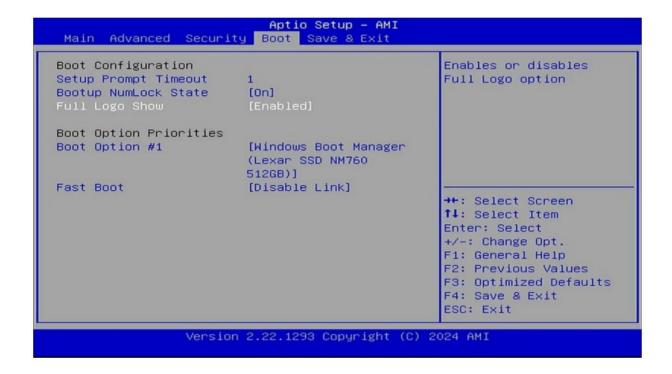
Wake up day of month: Wake up on a fixed date each month

Wake up hour: The wake-up time is measured in hours.

**Wake up Minute:** The wake-up time is measured in minutes.

**Wake up Second:** The wake-up time unit is in seconds.

### **BOOT startup configuration**



# **Boot Configuration Function description:**

**Setup Prompt Timeout:** The duration of LOGO waiting when the machine is turned on. Time unit is second.

**Bootup Num Lock State:** The status of the numeric lock key on the keyboard at startup.

Quiet Boot: "Enabled" opens the boot LOGO, "Disabled" closes the boot LOGO.



The setting of BIOS directly affects the performance of the computer. Setting the wrong parameters will cause damage to the computer, and even cannot be turned on. Please do not change the BIOS Settings at will, so as to avoid the machine can not be used normally.

## **Daily Use And Maintenance**

- 1. When the machine is in normal use, please ensure that the machine works in a non-vibration environment, To avoid damaging the hard disk and internal components.
- 2. When using the machine, please pay attention to the ambient temperature between-10°C and 50°C.
- 3. This machine adopts shell heat dissipation. In order to ensure the heat dissipation effect of the machine, we strongly recommend it It is recommended that you clean the surface of the machine every three months when there is a lot of dust It is recommended to clean the machine surface once a month in the environment.
- 4. In order to ensure the efficient and reliable operation of the machine, we recommend that you regularly check it every three months Run a disk cleanup and disk defragmentation on the hard disk.
- 5. When using the internal slot of the machine, we strongly recommend that you do not plug and unplug it with power on to avoid cause static damage. When the machine encounters a power failure for reasons other than human, in order to ensure If the machine works normally and reliably, we strongly recommend that you immediately power the machine Disconnect, confirm the stability of the power grid and then connect to the operation;
- 6. We suggest that the machine be dedicated to a specific machine and managed by a specific person.

# **Common Faults And Troubleshooting Methods Of Equipment**

#### Hardware faults and troubleshooting methods

1. The device cannot be started

Cause of failure: power failure, motherboard failure, loose memory stick, etc.

Elimination method:

- Check whether the power adapter is working properly and whether the plug is loose.
- Check if the power indicator light on the motherboard is on.
- Reinsert the memory module and make sure it is securely installed.
- 2. The display has no signal

Cause of failure: Loose or damaged display cable.

Elimination method:

- Check that the graphics card is securely plugged in.
- Check whether the monitor cable is loose or damaged.
- Replace the display cable and test.

### Software faults and troubleshooting methods

1. The system cannot be started

**Cause of failure:** The operating system is damaged and the boot guide file is lost.

Elimination method:

- Use system repair tools (such as Windows startup repair).
- Use the system installation disk to reinstall the operating system.
- 2. Blue screen

**Cause of failure:** driver conflict, hardware failure, software compatibility problem.

Elimination method:

- Check recently installed software and uninstall software that may cause conflicts.
- 3. The system runs slowly

**Cause of failure:** excessive system resource occupation, malicious software, too many hard disk fragments.

Elimination method:

Use the Task Manager to view system resource usage and terminate high-usage

processes.

- Run anti-virus software to check and clean up malware.
- Run the disk defragmentation tool to defragment the hard disk.
- 4. The application cannot be started

Cause of failure: software damage, missing system files.

Elimination method:

- Reinstall the application that cannot be started.
- Use a system file checker tool (such as Windows's SFC command) to fix the system files.

# **Documents / Resources**



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IFC-BOX-NS52 14th Generation Core Ultra Network Security Server, IFC-BOX-NS52, 14th Generation Core Ultra Network Security Server, Generat ion Core Ultra Network Security Server, Ultra Network Security Server, N etwork Security Server, Security Server

#### References

- User Manual
- RUSAVTOMATIKA
- ♦ 14th Generation Core Ultra Network Security Server, Generation Core Ultra Network Security Server, IFC-BOX-NS52, IFC-BOX-NS52 14th Generation Core Ultra Network Security Server, Network Security Server, RUSAVTOMATIKA, Security Server, Ultra Network Security Server

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