ALTOS T420 F1 Thin Client

User Guide

Notes, cautions, and warnings

ⓘ NOTE: A NOTE indicates important information that helps you make better use of your product.

△ CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

⚠ WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

Welcome to T420 F1 thin client

ALTOS T420 F1 thin client is a high-performance thin client with quad core processors, designed for secure, and easy-to-manage virtual desktop environments. The thin client supports TOS3000 and Windows 10 IoT Enterprise operating systems.

ALTOS T420 F1 thin client is T- series thin client which offers the following:

- Intel Baytail Daul or Quad Core processor.
- Intel HD Graphics.
- Wi-Fi 802.11 ac, Wi-Fi 802.11a/b/g/n.
- Common and external USB-based card reader (optional).

Chassis overview

This section explains the front and rear views of ALTOS T420 F1 thin client.

1. Power button

2. Mic-in

3. Line-out

4. USB 3.0

5. Antenna reserved

6. USB 2.0

7. RJ45

8. USB 3.0

9. Display port

10. Type-C

11. DC 12V input
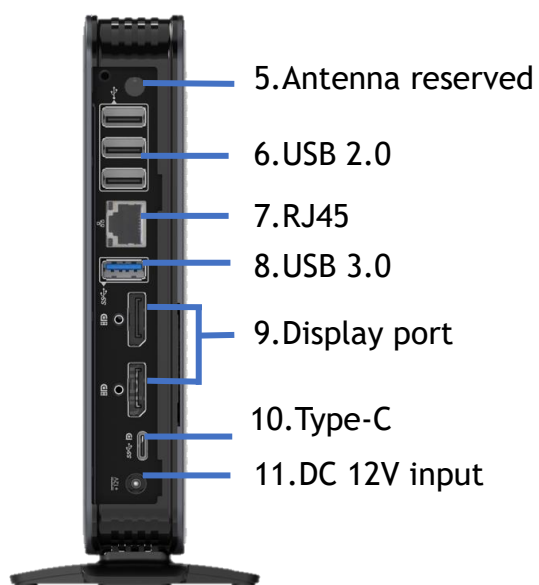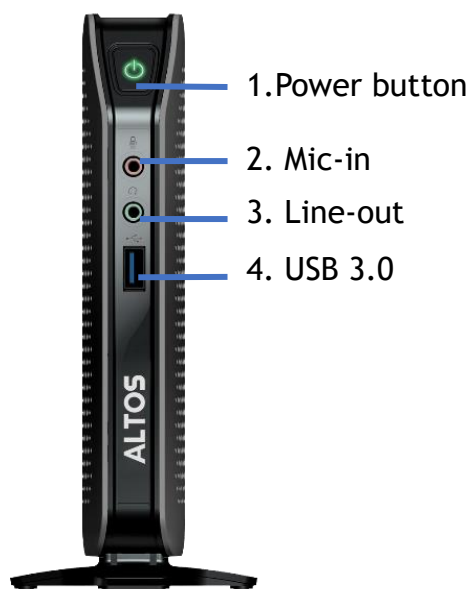
Major components of your thin client
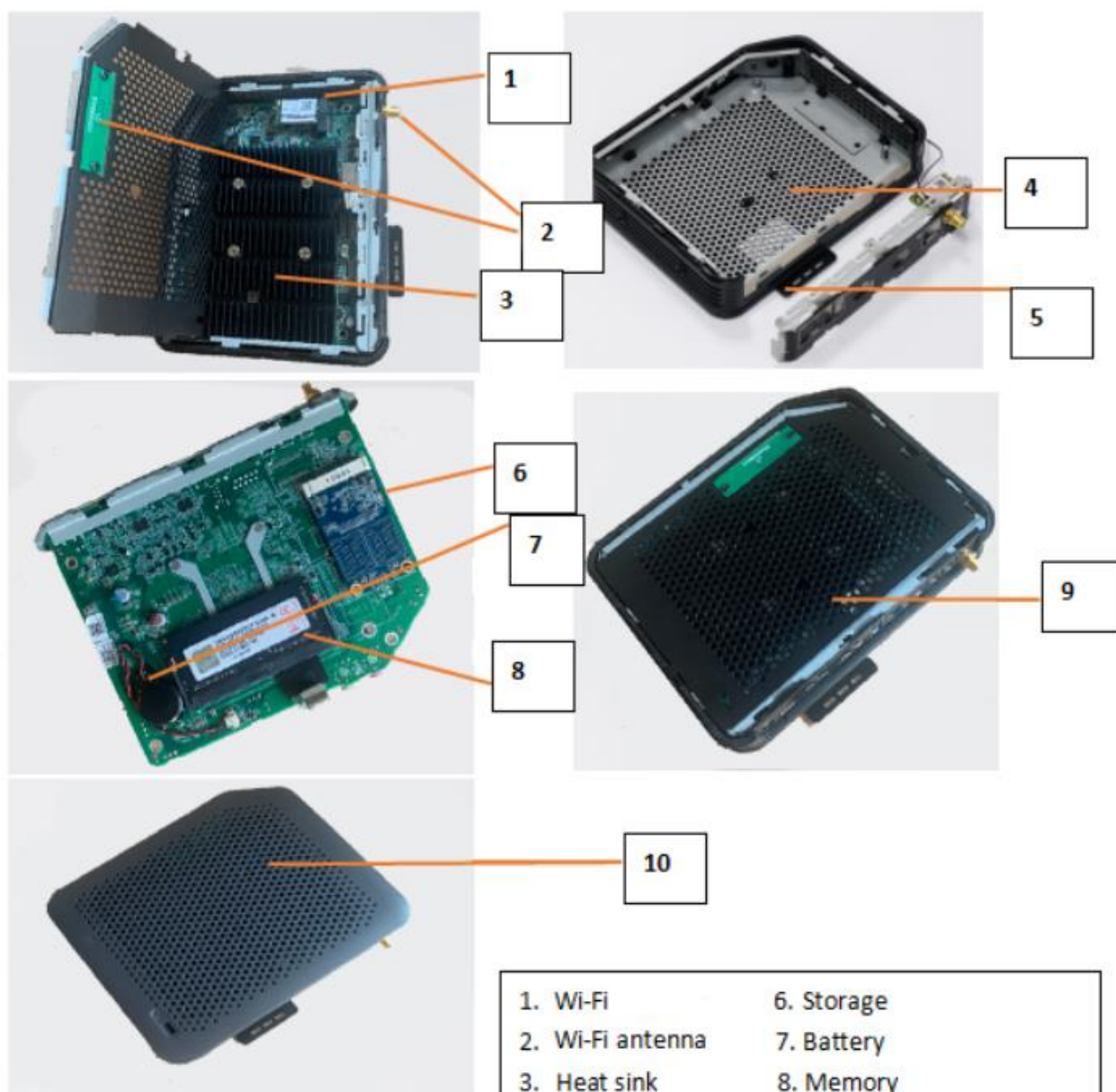
1. Wi-Fi
2. Wi-Fi antenna
3. Heat sink
4. Rear board
5. Chassis case
6. Storage
7. Battery
8. Memory
9 Inner cover
10 Chassis cover

Supported system peripherals for T420 F1

This section contains details on the supported system peripherals that are shipped as part of T420 F1 thin client.

Topics:

Supported mounts

This section contains details on the supported mounts for T420 F1 thin client.

- VESA Wall mount

  NOTE: Vertical stand will be shipped as part of T420 F1 thin client.

Supported system peripherals

This section contains details on the supported system peripherals for T420 F1 thin client.

- Logitech H340 USB headset
- Keyboard and mouse
- SCR 100 Card Reader

Setting up the thin client

This section explains how to setup the T420 F1 thin client on premise.

The ALTOS T420 F1 thin client can be setup with any one of the operating systems at your workplace:

- TOS3000
- Windows 10 IoT Enterprise

To set up the T420 F1 thin client, do the following:

1. Install the stand
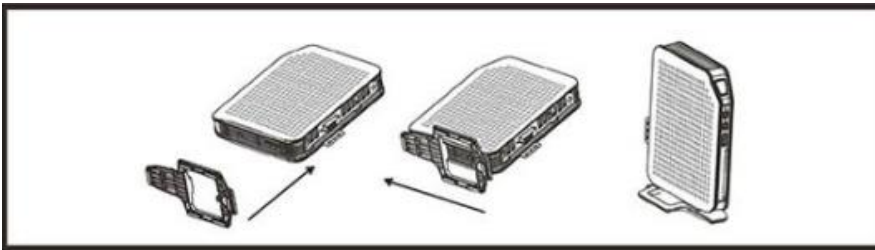
Figure 2. Installing the stand

2. Connect the power source
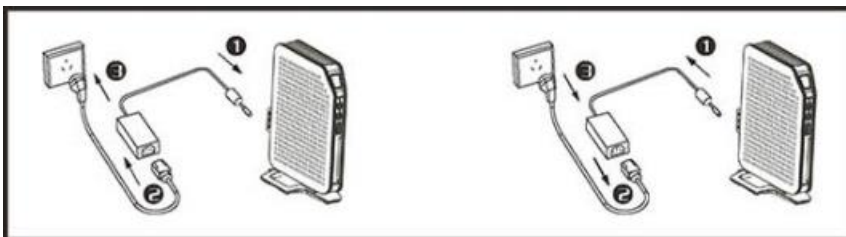
Figure 3. Installing keyboard and mouse

3. Connect the network cable

Figure 4. Installing network cable
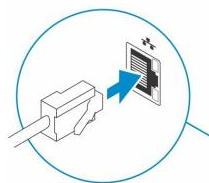
4. Attached thin client behind of the monitor, and get it fasten
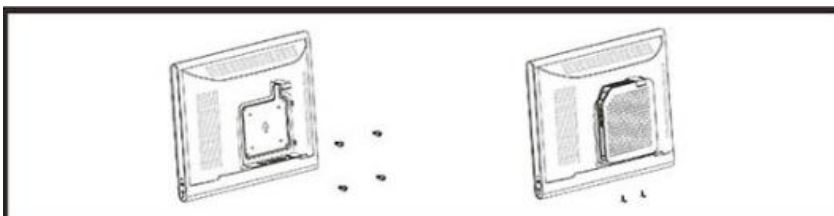
Before working on your thin client

You must perform the below steps before you work on the thin client.

1. Save and close all open files and exit all open applications.
2. Click Start > Power > Shut down to shut down your thin client.
3. Disconnect your thin client and all the attached devices from their electrical outlets.
4. Disconnect all network cables from your thin client.
5. Disconnect all attached devices and peripherals, such as keyboard, mouse, and monitor, from your thin client.

After working on your thin client

NOTE: You must not leave the stray or loose the screws inside your thin client. This may damage your thin client.

1. Reinstall all the screws and ensure that no stray screws remain inside your thin client.
2. Connect any external devices, peripherals, or cables you removed before working on your thin client.
3. Connect your thin client and all attached devices to their electrical outlets.
4. Turn on your thin client.

Disassemble components

This section provides detailed information about how to remove or install the chassis and memory module of your thin client.

Topics:

Chassis cover

Chassis cover provides security for the entire thin client and also helps in maintaining proper air flow inside the thin client.

Remove the chassis cover and inner cover

Procedure

1. Place the thin client on a horizontal position, then loosen the red-marked screw, then take it away.

2. Align with the arrow marked to slide down the cover, then take the cover off.

3. Loosen the marked screw, then take screws away from the inner cover.

4. Align with the arrow marked to move the inner cover, and then take it out from the client.

Wi-Fi module

A Wi-Fi module is a moveable circuit board having wireless signal involved, that is fasten on the surface of main board

Remove the Wi-Fi module

Prerequisites

Remove the chassis cover
Remove the inner cover

Procedure

1. Loosen that screws that fasten the Wi-Fi adaptor, and then take out the screw.
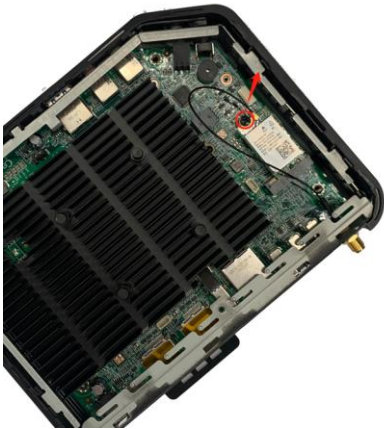
2. Loosen the antenna; then take it out from rear board.

Memory module

A memory module is a circuit board that contains DRAM-integrated circuits that are installed into the memory slot on a system board.

Remove the memory module

Prerequisites

Remove the chassis cover
Remove the inner cover

1. Loose the screws Remove all screws, then take the board out from the case
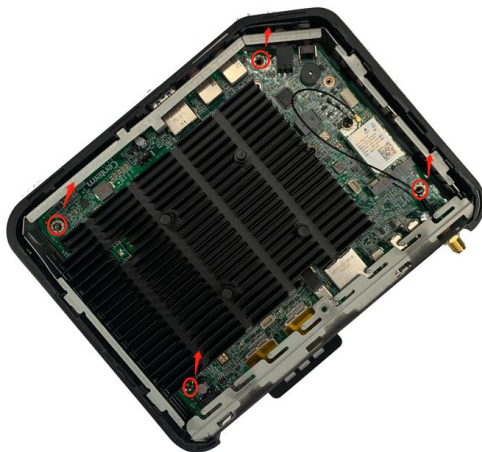
2. Turn around the board, and memory slot can be seen on the back

3. Stretch both side of memory slot to loosen it, so that memory can be taken out from slot

Storage module

Prerequisites

Remove the chassis cover
Remove the inner cover
Turn the board to other side

1. Loose the screw which tighten the storage with mSATA slot

2. After screw removed, storage chip would be risen-up，then take it out from the slot

Heat sink module

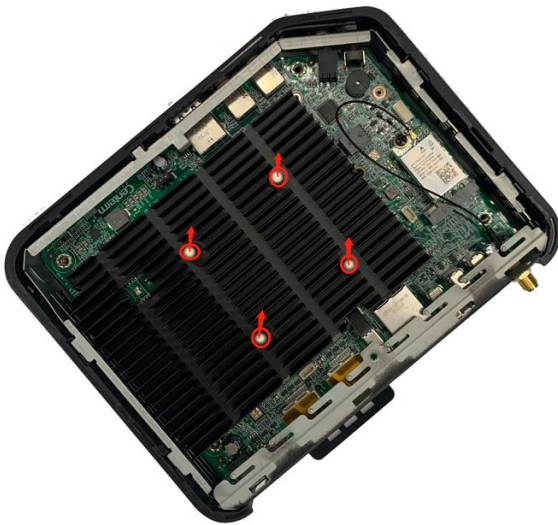## Prerequisites

Remove the chassis cover
Remove the inner cover
Turn the board to other side

1. Loosen the screws on head sink, then move sink away from board

2. Turn the board to other side, take out the hooks from the back

Technical specifications

This section provides the technical specifications of the ALTOST420 F1 thin client features.

System specification

CPU	Processor	Intel® Celeron® Processor N5105 (Quad Core 2.0GHz)
Memory	RAM	4GB(SO-DIMM DDRR4), Up to 16GB
Storage	mSATA	64GB, Up to 1TB
Display Port	Type	1 Type-C, 2 DP
	Resolution	4096 x 2160 @60Hz
Audio		• 1 Lin-out • 1 Mic-in
I/O ports	Front I/O ports	• 1 Power button • 1 Line-out • 1 Mic-in • 1 USB 3.0 port
	Rear I/O ports	• 1 Antenna reserved • 1 USB 3.0 port • 3 USB 2.0 ports • 2 DP Port • 1 GbE LAN (RJ-45) port • 1 Type-C • 1 DC 12V input
LAN		1 Gigabit Ethernet (10/100/1000Mbps), RJ-45
Management		Altos Thin-Client Management
Power supply	Adapter	Worldwide auto-sensing 100-240V AC, 50/60 Hz, 12V/3A DC
	Consumption	Less than 10W
Form factor	Dimension	131mm x 31.5mm x 167mm (stand excluded) 131mm ×76mm ×178mm (stand included)
	Weight	0.55 kg
Mounting		Vertical standing feet VESA mounting bracket
Security		• Standard Kensington anti-theft keyhole • TPM Module
Cooling		Fan-less Convection
OS support		• Linux • W10 IOT (Optional) • W10/W11 Pro (Optional)
Protocols		• Citrix receiver • Microsoft RDP Client • VMware View Client
Certification		CE、FCC
Warranty		3 Years

T420 F1 thin client configuration on TOS

This section provides the instructions on how to easily configure and efficiently manage T420 F1 thin client that runs on TOS3000.

Topics:

· **Introduction**
· **Configure OS instruction**

Introduction

Thin clients running ALTOS TOS 3000 are designed solely for optimal thin client security and performance. These efficient purpose-built thin clients are virus and malware resistant, and offer ultra-fast access to applications, files and network resources within Citrix, Microsoft, VMware.

Configure OS instruction

How to setup a network IP

1. Go to **Settings**>**Network**
2. Ensure Network state is **ON,** turn it on if it was OFF
3. Fill **in IP address**, **Subnet mask** and **Default gateway** if specific IP address is required
4. Also, setup **DNS servers**
5. Click **OK** to save settings

How to connect to a wireless hot spot

1. Go to **Settings**>**Network**
2. Select **Network card**>**Wireless adapter**
3. Click **Scan** to search available hotpot
4. Select contain SSID from **Wireless List**
5. Input **Network key** for security authentication if required
6. Tick mark would be shown behind selected SSID if connected in success

How to setup Language and keyboard

1. Go to Settings>Language &Keyboard
2. Select relevant **Display Language**, **Keyboard layout** and **Keyboard** model from drop-down box

How to setup time and synchronize time

1. Go to **Settings**>**Date & Time**
2. Setup corresponding time at **System Time**
3. Turn on **Time synchronization**
4. Fill in **Time server** address and assign **synchronization rate**
5. Click **Sync Now**

How to change Management Mode Password

1. Go to **Settings**>**Management Mode Password**
2. Fill in **old password** and **new password**
3. Retype **Confirm password**

4. Click **OK** to save all settings

How to import certificate
1. Click **Settings**>**Certificat**e>**Certificate location**>**USB**
2. Copy certificate to a USB drive, then attach USB drive with thin client
3. Choose certificate from USB drive, click Import
4. Certificate can be viewed and browsed after **Scan**

Network condition inspection
1. Click **Settings**>**Network Tools**
2. Type in certain IP address and number for request sending
3. Click **Ping** to start checking
4. Network condition is ok if statistics for round trip and transmission shown
5. Click **OK** to save all settings

Triple display settings
1. Ensure 2 DP monitor and a Type -C I monitor ready
2. Connect 2 DP monitors to DP ports, and connect Type -C monitor to Type-C port
3. Click **Settings**>**Personalization**>**Display**
4. Choose **Display Mode**> **Triple Display**
5. Choose which monitor (DP or Type C) is primary monitor at **Main display**
6. Setup current resolution rate at **Resolution**
7. Click **OK** to save settings

How to connect to RDP session
1. Click left down Gear icon to enter to setting
2. Click **Management Model**, then fill in security password "Admin"
3. Go to **Cloud Service** > **Server address,** type in server Ip address
4. Turn on other features if needed at **Experience, Advanced** and **Device Redirection**
5. Click **OK** left down the corner to save settings
6. Fill in username, password, and Domain at login menu, click **Log On** to start connecting

How to connect to Citrix desktop server
1. Click left down Gear icon to enter to setting
2. Click **Management Model**, then fill in security password "Admin"
3. Go to **Cloud Service** > **Connection type >Citrix Receiver,**
4. Drop down index **Authentication mode,** select appropriated mode**; then** type in server Ip address
5. Turn on **other feature** if needed at **Device Redirection**, as well as at **Options**
6. Click **OK** left down the corner to save settings
7. Fill in username, password, and Domain at login menu, click **Log On** to start connecting

How to connect to VMware view server
1. Click left down Gear icon to enter to setting
2. Click **Management Model**, then fill in security password "Admin"
3. Go to **Cloud Service** > **Connection type >VMware Horizon View**
4. Choose **Authentication mode,** select appropriated mode**; then** type in server Ip address
5. Set up **Security** and **Protocol** in accord with what are configuration done in server
6. Turn on feature at **Device Redirection**, **Experience** and **Advanced**
7. Click **OK** left down the corner to save settings
8. Fill in username, password, and Domain at login menu, click **Log On** to start connecting

T420 F1 thin client on Windows 10 IoT

This section provides the instructions on how to easily configure and efficiently manage ALTOS T420 F1 thin client that runs on Windows 10 IoT Enterprise.

Topics:

- **Introduction**
- **Before configuring your thin clients**
- **Automatic and manual login**
- **Enable auto login**
- **Keyboard and region settings**
- **Devices and printers**

Introduction

The thin clients running Windows 10 IoT Enterprise provide access to applications, files, and network resources. The applications and files are made available on machines hosting Citrix Receiver, Microsoft Remote Desktop Connection, VMware Horizon client session,

Other locally installed software permits remote administration of the thin clients and provides local maintenance functions. More add-ons are available that support a wide range of specialty peripherals and features for environments that require with 64-bit Windows compatibility.

Before configuring your thin clients

Before you configure your thin clients, ensure that you configure Unified Write Filter that protect your thin clients. The Unified Write Filter Utility prevents undesired flash memory writes

However, there are instances where administrators can retain the changed configurations after you log out and restart the thin client.

Automatic and manual login

What you see when a thin client turns on or reboots depends on the administrator's configuration. After creating a user account, an administrator can configure the account to log in automatically or manually with user credentials. Ensure that you disable
the Unified Write Filter (UWF) before you change a password on the thin client, and then enable UWF after your change. To change the password, press Ctrl+Alt+Delete, and then click Change a password. However, this feature is not applicable for User accounts.

⚠ **CAUTION:**

CAUTION: Please follow proper write filter and Windows Page File usage instructions at all times. Such instructions include making sure that the write filter is enabled during regular use and is disabled only temporarily by an administrator when required for image upgrades, applying security patches, registry changes and application installation. The write filter should be re-enabled as soon as such tasks are completed. Such instructions further include never enabling the Windows Page File feature during regular use of the thin client.

When you start the thin client, you will automatically log in to the user desktop by default.

NOTE: The Windows icon on the taskbar is the start menu button.

To log in as a different user or administrator:
1. Go to Start > User icon > Sign Out to log out from the current desktop.
2. Click anywhere on the lock screen to view the login window.
3. You can view the user accounts list on the screen. Click the preferred user account and then enter the login credentials.

- Administrators—The default user name is Admin and the default case-sensitive password is Admin.
- Users—The default username is User and default case-sensitive password is ALTOS (if it has).

Enabling auto logon

Automatic logon to a user desktop is enabled by default on the thin client device. To enable or disable auto logon, and to change the default user name, password, and domain for a thin client, use the auto logon feature.

To enable/disable auto logon:
1. Log in as an administrator.
2. Go to Start > Run CMD> Register Editor> Winlogon>AutoAdminLogon>1
   The ALTOS Thin Client Application window is displayed.
3. To start with the admin logon page, enter Admin or User in the Default User Name field.

Keyboard and region settings

To select your regional formats including keyboard and the Windows display languages, use the Region

dialog box. To select your regional formats, do the following:

1. Log in as an administrator.
2. Go to Start > Control Panel > Clock and Region.
3. The Clock   and Region dialog box is display
4. After settings done click Apply, and then click OK.

Devices and printers

To add devices and printers, use the Devices and Printers window.

⚠ CAUTION: To refrain from cleaning up your settings, disable/enable the Unified Write Filter (UWF)

To add a device or a printer to the thin client, do the following:

1. Log in as an administrator.
2. Go to Start > Control Panel > Devices and Printers. The Devices and Printers window is displayed.

Adding printers

To add a printer to the thin client:

1. Click the Devices and Printers icon in Control Panel. （"View by small icons" should be set firstly)
2. The Devices and Printers window is displayed.
3. To open and use the Add a Printer wizard, click Add a

   Printer. The Add a Printer wizard session starts.

Configuring multi-monitor display

You can use the Screen Resolution window to configure dual monitor settings on your dual-monitor capable thin

client device. To open the Screen Resolution window, do the following:

1. Log in as an administrator.
2. Right click mouse > Display settings > Display > Multiple displays

BIOS overview

Topics:

· **Accessing thin client BIOS settings**
· **System Setup overview**
· **Boot Sequence**
· **Key functions**

Accessing thin client BIOS settings

This section describes about the ALTOS thin client BIOS settings. While starting a thin client, a logo is displayed for a short period.

1. During start-up, press the F2 key
2. The BIOS settings dialog box is displayed.
3. Use the System Setup settings to change the BIOS settings.

    NOTE: There is an option to restore BIOS defaults

    BIOS settings > Restore Defaults

· To access the boot menu during start-up, press the F12 key. Use the Boot Selection menu to select

System Setup overview

System Setup allows you to:
· Change the system configuration information after you add, change, or remove any hardware in your thin client.
· Set or change a user-selectable option such as the user password.
· Read the current amount of memory or set the type of hard drive installed.

⚠ CAUTION: Unless you are an expert thin client user, do not change the settings for this program. Certain changes can cause your thin client to work incorrectly.

Boot Sequence

Boot Sequence allows you to bypass the System Setup–defined boot device order and boot directly to a specific device. During the Power-on Self-Test (POST), when the ALTOS logo appears you can:

- Access System Setup by pressing the F2 key
- BIOS settings > Boot > Boot Option Priorities

Keys Functions

NOTE: **For most of the System Setup options, changes that you make are recorded but do not take effect until you restart the system.**

Figure 13. Keys Functions

Key	Functions
↑↓→←	Move
Enter	Select
+/-	Value
ESC	Exit
F1	General Help
F5	Previous Values
F9	Optimized Defaults
F10	Save & Exit Setup
<K>	Scroll help area upwards
<M>	Scroll help area downwards

HEVC