4-Port Wireless USB Server

User's Manual

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Before attempting to connect, operate or adjust this product, please save and read the User's Manual completely. The style of the product shown in this User's Manual may be different from the actual unit due to various models.

Safety instructions

Always read the safety instructions carefully:

- Keep this User's Manual for future reference
- Keep this equipment away from humidity
- If any of the following situation arises, get the equipment checked by a service technician:
  - The equipment has been exposed to moisture.
  - The equipment has been dropped and damaged.
  - The equipment has obvious sign of breakage.
  - The equipment has not been working well or cannot get it to work according to the User's Manual.

Copyright

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Introduction

This server allows you to control the USB devices (such as multi-function printer, scanner, keyboard and etc.) using a computer through a network. it provides USB2.0 full-speed data transmission rate up to 480Mbps, and 4 USB device connections are supported. Except the Ethernet connection, the built-in WiFi connection allows you to access these USB devices without 5 meters limitation of USB cable.

Features

- Compliant with USB2.0 version specification
- High-speed USB data transmission rate up to 480Mbps
- 10/100/1000Mbps Ethernet port for LAN
- 802.11b/g/n WiFi for wireless LAN
- Centralized remote USB server management
- Centralized remove device status monitoring
- 8 KVDC ESD immunity to USB port
- DIN-rail mountable

Package contents

- Wireless USB server x1
- CD (Driver & User's Manual) x1
- Power adapter (AU/EU/UK/US adapter converter included)

Connectivity

- The USB server provides the following connections to your USB devices

■ 4 USB 2.0 High speed ports
■ Full 500mA power provided to each port

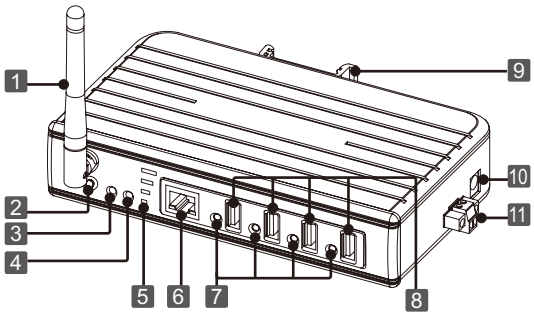
- The USB Server provides the following connections to your Network

■ RJ45 Ethernet connector
■ 10/100/1000 Mbps auto sensing (Auto-MDIX capable)
■ IP addressing: Static/DHCP

System requirement

■ IBM compatible computer or Mac
■ Windows 7 ®, Windows Vista ®, Windows XP ® 32/64-bit, Windows 2000 ® and Mac OS® X
■ Built-in USB port computer
■ 64 MB RAM or higher
■ Pentium® 233 MHz or higher
■ Macintosh: Mac OS X 10.4.7 (or later)
■ Linux 2.6.15 or Later

Product overview



1 **WiFi antenna**
2 **Reset button:** Presses to restore the factory default settings.
3 **Link/Act:** ■ Lights green when connecting to an available network.
■ Flashes green when the wireless data is transmitting.
4 **Power indicator:** Lights up when the power is on.
5 **Signal strength:** Displays the status of signal strength.
6 **RJ-45 Ethernet connector:** Connects to an available LAN (Local area network).
7 **LED indicator :** Lights up when a USB type-A connector is used.
8 **USB 2.0 type-A connector:** Connects to a desired USB device.
9 **DIN mounting:** Attaches to a standard DIN-Rail.
10 **5V3A DC Power jack**
11 **9~36 VDC power terminal**

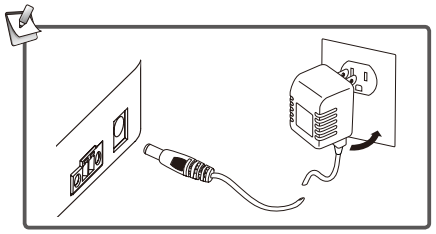
Connection

Power connection

To power the USB server, choose one of the below methods. Power LED lights up when the USB server's power is on.

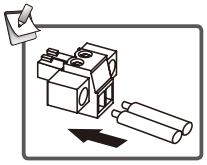
DC-In

Plug the supplied power adapter into a wall outlet and the other end to the USB server's DC power jack.

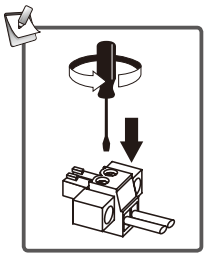


Power cable

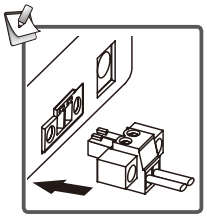
1. Insert the cable into the power terminal block.



2. Tighten the screw using screwdriver.



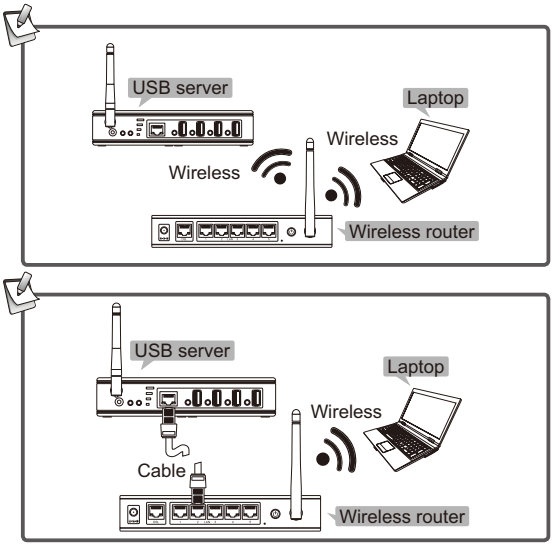
3. Plug the power terminal block into the USB server according to the connector's orientation.



Network connection

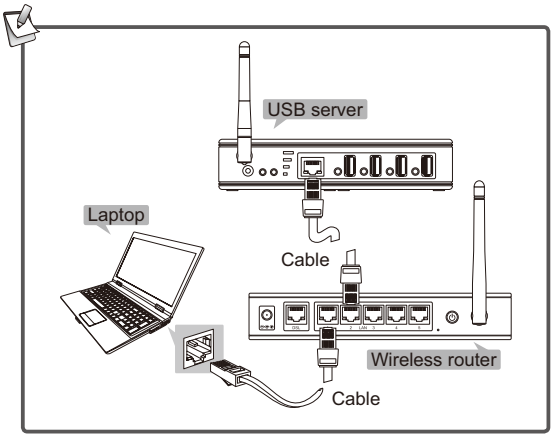
This USB server can connect to an available LAN (Local Area Network) using wire or wireless. Select one of the following methods to connect the USB server. Note that the connection diagrams shown below are examples only. The real applications may be different from the actual conditions.

Wireless connection



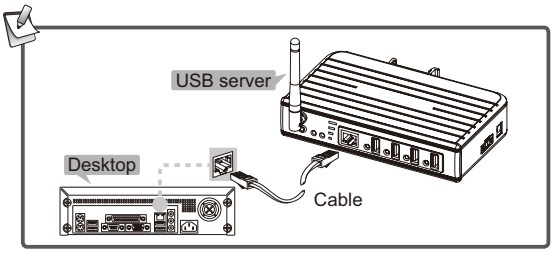
The device of router can be a DSL router, Ethernet Hub/Switch or 802.11x router/base station.

Wire connection



PC connection

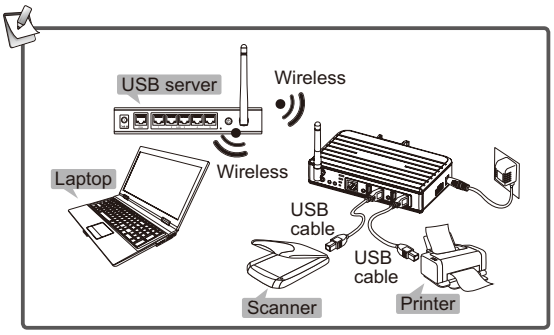
Connect the USB server to a computer using Ethernet cable directly if you do not have a network.



USB devices connection

Connect USB device(s) to the USB server when the USB server has been connected to a LAN. The supported USB devices of this USB server are USB printers, USB multi-function printers, USB scanners, USB hard drives, USB HID devices (i.e. keyboards and mice), USB cameras, USB Audio/Video products and etc..

Note: Install the USB device's drivers before connecting to the USB server is recommended.



Utility installation

Note that the following descriptions of software installation and operations are on the Windows Operation System platform. Although the screen shots shown on this user's manual may not match your operation system, the definitions of buttons, tabs and menus are the same.

1. Insert the supplied driver CD into your computer's CD/ DVD-ROM.

2. Double click the installation file to start the installation wizard, and then follow the on-screen instructions to complete the installation procedure.

3. Click <**Yes**> to add the utility to the firewall exception list when the utility dialog window pop-up on the screen.

4. The utility's shortcut will appear on the system tray when the installation is complete.

Note: Please install the utility before connecting the USB server to a computer.

Utility operation

The USBIP Admin Utility can detect the USB devices which are connected to the USB server. With the utility, the connected USB devices can be used by different users as long as the users are connecting to the same LAN and under the same IP subnet.
The USB server is designed for monopoly type connection which means the USB device can be used by one user at a time. To access the occupied USB device, the first user has to relinquish the connection to other user. In-case o-f printers, the USB server utility can be shared with different users simultaneously. Refer to **Printer sharing** chapter for more details.

Getting started

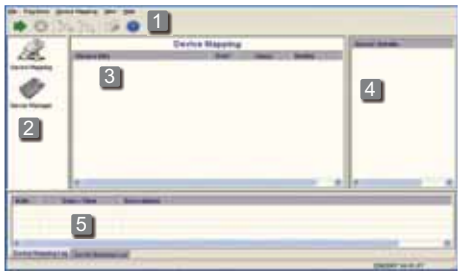
1. Install the utility of USB server (refer to **Utility installation** chapter) and USB device drivers (refer to the USB device user's manual) to the computer you wish to connect.

2. Power on the USB device, refer to the **Connection > Power connection** chapter.

3. Connect the USB server to a computer, refer to the **Connection > Wireless connection** or **Wire connection** chapter.

4. Launch the utility.

5. Utility's main menu.



1 **Menu bar:** Presents the command list and graphic user interfaces.

2 **Function Panel:** Lists the function of USB server utility.

3 **Main window:** Lists the connected device server and USB devices.

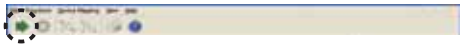
4 **Server/Device Details Panel:** Displays the detailed information which are selected on the main window.

5 **Log panel:** List the log of the USB server. Shows useful messages of the user's processing history.

Device mapping

1. Click < **Device Mapping** > on the function panel.

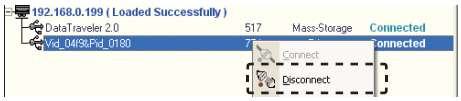
2. Click the < > on the toolbar to start the device mapping after connecting USB devices.



3. All the connected USB devices will be listed as a tree hierarchy under the USB server on the main window after a while.

4. By default, all the detected USB devices will be connected automatically when mapping procedure is finished. If the status of USB device shows **Disconnect**, right click on the main window of **Device Mapping** to bring up the pop-up menu and then select < **Connect** > to virtualizes the USB device onto your computer.

5. To disable the connection, right click the desired USB device on the **Main window** of **Device Mapping**, and then select < **Disconnect** >.



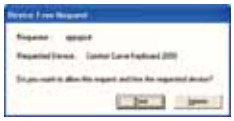
Device request

In a local area network, the connected USB devices can be used by multi-users through the USB device. Note that only one user can access a USB device at a time. When the status of USB device shows Busy, it means this USB device has been claimed by one user already. To access this USB device, you have to request that user to relinquish the connection.

1. Right click the busy USB device on the **Main window** of **Device Mapping** to bring up the pop-up menu, and then select <**Device Request**>. Alternatively, you can select <**Device Request**> from **Menu bar**.

2. A message will appear on the screen when the request has been sent successfully, and then click <**OK**>.

3. The current user which is accessing the USB device will receive a **Device Free Request** message as shown below.



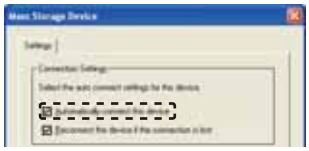
4. The current user can either click <**Free**> to release the USB device or click <**Ignore**> the reject the request.

Device setting

To setup the connection of USB device, right click the desired USB device to bring up the pop-up menu, and then select **Settings**.

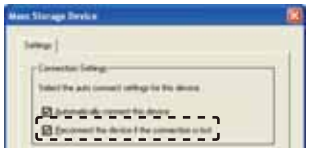
Automatically connect this device

The auto connection can be enabled or disabled for each device. By default, the auto connection is enabled for all USB devices after mapping. To change the default setting, uncheck this option, and then click <**Save**> to exit.



Reconnect the device if the connection is loss

You may re-establish the connection back with the device if disconnecting. To enable the auto re-connect back to the network as your default setting, tick this option, otherwise re-connect the network manually. To exit the setting window, click <**Save**>.

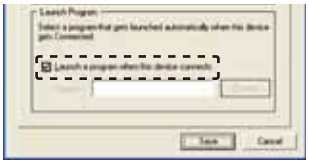


Note: The reasons for disconnection may include the following: USB server is power cycled, USB device is unplugged, network's cable is unplugged and etc..

Auto launch the program

Auto launches a specific application when the specific USB device is connected.

1. Tick **Launch a program when this device connects** option.



2. Click <**Browse**> to set the path of the application which needs to be launched, then click <**Save**> to exit the dialog window.

3. A message as shown below will appear on the screen if the setting is successful, and then click <**OK**> to confirm.

Note: The specific application will be launched only when the specific USB device is connected.

Printer sharing

This application enables the connected printer as a printer server. To share the printer among multiple users, follow the steps below.

1. Install the printer driver to a client PC at least.

2. Connect the printer to the USB server.

3. Disconnect the printer from the main window of **Device Mapping**.

4. Click the **Printer Sharing** button on the **Menu bar** to open the **Printer Sharing** window.

5. When the **Printer Sharing** window is opened, the connected printers will be scanned, saved and listed.

6. Tick the printer which is connected, and then click <**Save**> button to close the window.

7. Once the printer is set to a printer server, it remains free except the printer is accessed and becomes **Busy** when a user prints to the printer. The printing jobs from multiple user will be executed on a time sharing basis.

Remove the obsolete printer

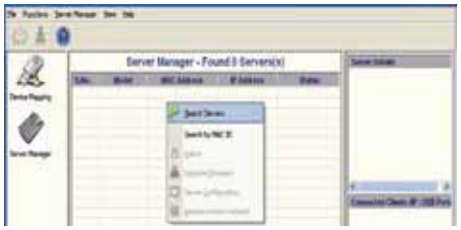
To remove the obsolete printer, right click the selected printer, and then select <**Remove**> option on the **Printer Sharing** window. The obsolete printer means the driver has been uninstalled from a client user. Remove the printer which is not an obsolete printer is banned. The user will receive the message as **Printer XXX: Is not an obsolete Printer!!**.

Note:
1. If a printer has been set in printer sharing mode, the **Auto Connect** will be turned off.
2. If try to enable the **Auto Connect** function for a printer which is in the printer sharing mode through device setting, a message will pop-up and show that it cannot be configured to **Auto Connect** mode as its **Printer Sharing** mode is already enabled.

Server manager

1. Click < **Server Manager** > from function panel.

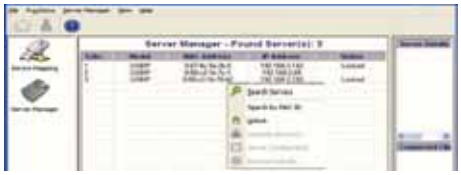
2. Right click to bring up a pop-up menu on the **Main window** of **Server Manager**, and then select <**Search Servers**>.



3. All the searched server will be listed on the **Main window** of **Server Manager** as shown below.

4. By default, the USB server is protected by a password. To configure the USB server, the unlock procedure is necessary.

5. Right click and select <**Unlock**> to bring up the password dialog window.



6. Key-in the password. The default password for the USB server is "**usbip**".

7. The message of **Unlock OK** appears on the screen when the authentication is successful. Now the USB server can be configured.

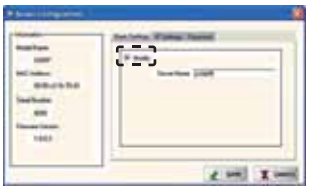
Server configuration

1. Right click to bring up the pop-up menu on the **Main window** of **Server Manager**, and then select <**Server Configuration**>.

2. The **Server Configuration** window will appear on the screen.

2-1 Rename the server

1. Click <**Basic Settings**> tab, and then tick checkbox of <**Modify**>.



2. Enter a desired name to the column of **Server Name**.

3. Click <**Save**> to confirm.

2-2 Change the IP address

1. Click <**IP Setting**> tab, and then tick the checkbox of <**Modify**>.

Note: By default, the IP address of this server is 192.168.3.22.

2. Select a preferred IP configuration.

3. Enter the desired **IP address**, **Subnet Mask** and **Gate Way**, and then click <**Save**> to confirm.

4. A successful message appears on the screen after click <**Save**>.

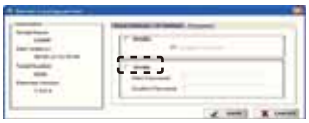
Note: Each device is identified by its unique IP address in the network. Do not use the IP address which has been assigned to other device already.

2-3 Enable, disable or change the password

1. Click the <**Password**> tab.

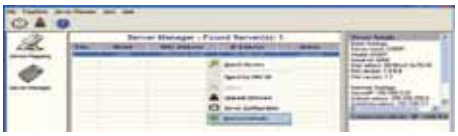
2. Tick the checkbox of upper <**Modify**> to enable or disable the password option.

3. Tick the checkbox of lower <**Modify**> to change your password.



Restore the factory default settings

1. Right click to bring up the pop-up menu on the **Main window** of **Server Manager**, and then select <**Restore Defaults**>.



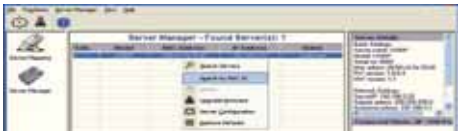
2. Click <**OK**> to restore the settings.

Note: All settings will restore the factory default if the firmware is upgraded.

Search server by MAC ID

Each USB server is assigned with a unique MAC ID which can be searched and configured even if the USB server is not configured in the same network.

1. Right click to bring up the pop-up menu on the **Main window** of **Server Manager**, and then select **Search by MAC ID**.



2. A reminder message pop-up on the screen, click <**Yes**> to add the application to the **Windows Firewall Exception List**.

3. The **Server Quick Configuration Utility** will be launched after clicking <**Yes**>, and then click <**Search**>.

4. The preconfigured USB servers will be searched as shown below.

Configure the USB server from USB Server Quick Configuration Utility

1. Click the desired MAC address from **Search Result** list, and then click <**Next**>. Alternatively, enter the MAC address to the columns of **MAC address** directly.

2. Choose to configure the USB server IP address in **DHCP** mode if the connected network supports DHCP. Choose **Static** as the IP configuration mode if the connected network does not support DHCP.

3. Tick checkbox of **Server Name** to assign a desired user name for identification. Once the settings have been completed, click <**Update**> to apply.

4. Click <**Yes**> to save the settings if the entered IP settings are correct.

Web-based configuration

1. To configure the USB server using web browser, launch a web browser and enter the IP address of the USB server. By default, the USB server's IP address is 192.168.3.22.

2. Enter the user name and password, and then click <**Submit**> to enter. The default user name is "**admin**" and the password is "**usbip**".

3. Several configuration pages are contained when the web configuration is opened. Click one of the pages to configure the USB server.

Home page

Displays the information of USB server, such as Server name, network settings, firmware version and etc..

Network page

The contents of network page will be changed depending on the type of connection you selected.

Wire connection

Click the wire option when connecting to a router through an Ethernet cable. Configure the **Static IP**, **Subnet Mask**, and **Gateway** manually or enable the DHCP to obtain an IP address.

Wireless connection

1. Click the wireless option when using a wireless connection to a router.

2. Click <**SCAN ROUTERS**> to search the available wireless LAN(s), and then select a desired wireless LAN to join.

3. Enable the **Encryption** option and then enter the password if the network is secured.

4. Enable the DHCP to get an IP address from the wireless router or disable to change the **IP address**, **Subnet mask** and **Default Gateway**.

Status page

The status page shows the current status of the connected USB devices, and update the information automatically every 10 seconds.

Upgrade page

1. To update the firmware of the USB server, click to enable **Complete Firmware Upgrade** option.

2. Enter **TFTP Sever IP address** and **Upgrade File Name**, then click <**Upgrade**>. Note that the file name you entered must match to the firmware file name on the TFTP server.

Log page

The Log page allows you to view the USB server's log and send the log events to a desired FTP.

1. To setup the FTP address, enable the <**Advanced Settings**>, and then click <**Submit**>.

2. Enable the **FTP Transfer**.

3. Enter the FTP address that you wish to receive the log file to the **FTP-IP Address**.

4. Enter the user name and password that you have set in the specific ftp to the **FTP-USER** and **FTP-Password address** respectively.

Settings page

Change the password

1. To protect the USB server using a password, click to select <**ENABLE**> in the **Password Enable/Disable** option.
2. Enter the password, and then click <**Submit**>.

Change the Server Name

Enter a desired name to the **Server Name** option.

Restore the settings

■ To restore the factory default settings, click <**Restore Defaults**>. Once the restore function has been operated, all the settings will be erased and return to the factory default.

Reset the Server

■ To reset the USB server, click <**Reboot Server**>.

Regulatory compliance

FCC conditions

Caution: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

RF exposure: The device has been evaluated for RF exposure at a distance of 20cm in mobile conditions. Keep the antennas of the device away at least 20cm from persons.

CE

This equipment is in compliance with the requirements of the following regulations:
EN 55 022: CLASS B

WEEE information

For EU (European Union) member users: According to the WEEE (Waste electrical and electronic equipment) Directive, do not dispose of this product as household waste or commercial waste. Waste electrical and electronic equipment should be appropriately collected and recycled as required by practices established for your country. For information on recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.

Specification

Item	Description
Ports	4xUSB2.0
Connector	USB-A female
ESD protect	8 KV ESD
Transmission Speed	12M~480Mbps
Interface	GigaLAN / Wi-Fi
Interface connector	RJ-45 / Antenna
Power requirements	5V3A DC / 9~36 VDC
Operating temperature	0 ~ 55°C
Operating humidity	5 ~ 95% RH
Regulatory approvals	FCC / CE

4-Port Wireless USB Server
User's Manual

0614v1