

7F-2,No.9.Prosperity RD.I SBIP Hsinchu,300 Taiwan Tel:886-3-5777364 Fax:886-3-5773359

IEEE 802.11b/g/n Wireless Media Adapter

User Manual

V1.1.0

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About This Manual

This manual explains Z-Com VUS-100 IEEE 802.11n Wireless Virtual USB Storage (hereafter called "USB"), how to build the infrastructure based on the VUS-100 and proposals when using this USB storage.

For your attention on important parts, special characters and patterns are used in this manual:



• This indicates an important note.

Bold: Indicates the function, important words, and so on.



CONTENT

CHAPTER 1 INTRODUCTION	7
INTRODUCTION	7
APPEARANCE	7
Key Features	7
TYPICAL APPLICATIONS	
CHAPTER 2 BASIC INSTALLATION	
System Requirements	
PACKAGE CONTENTS	
HARDWARE INSTALLATION	
LED DEFINITION	
CHAPTER 3 BASIC SETTINGS	
FACTORY DEFAULT SETTINGS	
UTILITY & WEB - DOUBLE MANAGEMENT TOOLS	
BASIC SETTINGS	
IP SETTINGS	14
WIRELESS BASIC SETTINGS	
WIRELESS SECURITY SETTINGS	17
SITE SURVEY	
WIRELESS CONNECTION SCENARIO	
CHAPTER 4 BROWSE LOCAL SHARED FOLDERS	
AUTO-SEARCH SHARED FOLDERS IN LAN	
BROWSE SEVERAL LOCAL SHARED FOLDERS SIMULTANEOUSLY	20
CHAPTER 5 BROWSE FLICKR NETWORK ALBUM	



Add/Delete Flickr Account	
MAXIMUM PHOTOS TO RETURN	
BROWSE PRIVATE FLICKR NETWORK ALBUM	24
CHAPTER 6 MANAGEMENT	
VIEW THE VUS-100 BASIC INFORMATION	
VIEW STATISTICS INFORMATION	
Firmware Upgrade	
BACKUP/RESTORE SETTINGS	
RESTORE FACTORY DEFAULT SETTINGS	
REBOOT	
CHAPTER 7 TROUBLESHOOTING	
FAQ (FREQUENTLY ASKED QUESTIONS)	
TECHNICAL SUPPORT	40
APPENDIX A. SPECIFICATIONS	41
APPENDIX B. TECHNICAL TERMS	
APPENDIX C. ASCII	45



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FIGURE

FIGURE 1 VUS-100	7
FIGURE 2 APPLICATION – LOCAL SHARED FOLDER	
FIGURE 3 APPLICATION – NETWORK ALBUM	8
FIGURE 4 APPLICATION – COMPATIBLE HISENSE LED TV	8
FIGURE 5 APPLICATION – PS3	9
FIGURE 6 DEFAULT INTERFACE OF UTILITY	13
FIGURE 7 BASIC SETTINGS	14
FIGURE 8 IP ADDRESS ASSIGNMENT	15
FIGURE 9 WIRELESS BASIC SETTINGS	16
FIGURE 10 WIRELESS SECURITY SETTINGS	17
FIGURE 11 SITE SURVEY	
FIGURE 12 WIRELESS CONNECTION SCENARIO	19
Figure 13 Folders	20
FIGURE 14 BROWSE SEVERAL SHARED FOLDERS	21
FIGURE 15 FLICKR ACCOUNT	22
FIGURE 16 ADD FLICKR ACCOUNT	23
FIGURE 17 MAXIMUM PHOTOS TO RETURN	24
FIGURE 18 BROWSE PRIVATE FLICKR NETWORK ALBUM	25
FIGURE 19 AUTHENTICATION	
FIGURE 20 LOGIN	27
FIGURE 21 CONFIRMATION	
FIGURE 22 CODE	
FIGURE 23 INPUT THE CODE	
FIGURE 24 BASIC INFORMATION	
FIGURE 25 STATISTICS	
FIGURE 26 UPGRADE FIRMWARE VIA UTILITY	

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FIGURE 27 UPGRADE FIRMWARE VIA WEB	. 33
FIGURE 28 BACKUP/RESTORE SETTINGS VIA UTILITY	. 34
FIGURE 29 BACKUP/RESTORE SETTINGS VIA WEB	.35
FIGURE 30 RESTORE FACTORY DEFAULT SETTINGS VIA UTILITY	. 36
FIGURE 31 RESTORE FACTORY DEFAULT SETTINGS VIA WEB	. 37
FIGURE 32 REBOOT VIA UTILITY	. 38
Figure 33 Reboot via Web	. 38



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TABLE

TABLE 1 VUS-100 LED DEFINITION	. 11
TABLE 2 VUS-100 FACTORY DEFAULT SETTINGS.	12
TABLE 3 PRODUCT SPECIFICATIONS	41
TABLE 4 TECHNICAL TERMS	. 44
TABLE 5 ASCII	45



Chapter 1 Introduction

Introduction

Thank you for choosing Z-Com VUS-100 IEEE 802.11n Wireless Virtual USB Storage! Compliant with IEEE 802.11b/g/n, this VUS-100 brings you with ideal transmission data rate and wider compatibility as well. As a concept of virtual USB storage, the USB host support is a must for connecting device. While highlighting its feature by replacing the traditional use of digital frame, VUS-100 transmits shared albums in LAN and Flickr network album via wireless, enabling you to conveniently browse your photos at anytime and anywhere!

Appearance



Figure 1 VUS-100

Key Features

- Transmit on-line photos to the digital photo frame, compatible Hisense LED TV and PS3 constantly via wireless
- Support local shared photo album transmission
- Support Flickr network album transmission (only can support Flickr currently)
- User-friendly Windows and Web-based management interfaces
- Support WPS enabled through hardware PBC

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Typical Applications

• Play photos in local shared folders via digital photo frame



Figure 2 Application – Local Shared Folder

Play photos in Flickr network album via digital photo frame



Figure 3 Application – Network Album

• Play photos in local shared folders or Flickr network album via compatible Hisense LED TV



Figure 4 Application – Compatible Hisense LED TV

• Play photos in local shared folders or Flickr network album via Play Station 3



Figure 5 Application – PS3

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Chapter 2 Basic Installation

System Requirements

Before installing and using your VUS-100, make sure your system meets the following requirements:

- One set of access point compliant with IEEE 802.11b/g/n
- One set of PC installed with 10/100 Base-TX network adapter
- Keep the IP address of PC, access point and VUS-100 in the same network segment. By default, VUS-100 is set to 192.168.1.1, configure the IP address of PC to 192.168.1.X (X can not be 0, 1 or 255)
- A Web browser on PC for configuration such as Microsoft Internet Explorer 6.0 or above

Package Contents

The package you have received should contain the following items, if any of them are not included or damaged, please contact your local vendor for support:

- VUS-100 Virtual USB Storage × 1
- 5V Power Adapter × 1
- USB Converter × 1
- Product CD × 1

Hardware Installation

Please follow the steps below to install your VUS-100:

- Power on VUS-100, and connect it to your computer with an USB converter after the WLAN(green) lights up;
- Wait for the VUS-100 driver auto installation. Insert the attached product CD and copy the Utility.exe in it to your PC. Double-click to open this utility and make configuration for your



VUS-100 (Please refer to Chapter 3 & 4 for configuration details.)

Plug VUS-100 out from your computer after configuration, and connect it to the digital photo frame, compatible Hisense LED TV or PS3 to complete installation.

LED Definition

The following table demonstrates the definition of LED which indicates the network activity of VUS-100.

Table 1 VUS-100 LED Definition

LED	Status		Definition
		On	Device powered on
Status	Red	Off	WLAN is up
		Blinking Fast	Device resetting
	0	Blinking	Find a WLAN network and ready to connect
WLAN	Green	Solid	Connect to a WLAN network – Tx/Rx Data
WPS	Blue	Blink Once	WPS enabled or disabled
Status & WPS	Red/Blue	Blink Concurrently	Firmware upgrading

Note:

• The LED of WLAN and Status share the same LED.



Chapter 3 Basic Settings

Factory Default Settings

The VUS-100 is set to default values when you first use it. The following table demonstrates the default settings of VUS-100, you can re-acquire these parameters by resetting the device. If necessary, please refer to **Restore Factory Default Settings**.

Table 2 VUS-100 Factory Default Settings

ltem	Default Value
Device Name	VUS-100
UPnP	Disable
IP Address	192.168.1.1
Gateway IP	192.168.1.254
Subnet mask	255.255.255.0
Primary DNS	0.0.0.0
Second DNS	0.0.0.0
SSID	any
Encryption	Disabled
Output Power	Full
Security Auth-type	Open System

Note:

 Please reboot your VUS-100 after modifying its configuration, refer to Reboot for how to reboot your device.

Utility & Web - Double Management Tools

VUS-100 provides you with two ways for management: Utility and Web. You can use either of them

to check and configure your USB storage settings.

Follow the steps below to start them:

Utility Management Tool



Copy the **Utility.exe** from the attached product CD into your PC, and double-click to run this utility, as

shown below:

🍾 VUS-100 Utility V1	.1.0			
Image: Status Image: System Image: System <t< th=""><th></th><th>United States VUS-100 tion 192.168.1.1 255.255.255.0</th><th>FW Versior</th><th>192.168.1.254</th></t<>		United States VUS-100 tion 192.168.1.1 255.255.255.0	FW Versior	192.168.1.254
	Wireless Informa	tion		
	SSID	any	Channel	1
	Connection	06:60:83:18:19:22	Encryption	DISABLED
				<i> <u>B</u>efresh</i>

Figure 6 Default Interface of Utility

Web-based Management Interface

Alternatively, after accessing the wireless network, you can input the IP address (By default it is set to 192.168.1.1) of VUS-100 in the IE address field to login VUS-100 Web-based management interface or use UPnP to login VUS-100 and make configuration.

As the information and configuration options in Web-based management interface are identical to the ones in Utility, we mainly take Utility as an example in this manual.

Basic Settings

From the Utility, click to open **System** \rightarrow **General** in the left menu bar to modify basic parameters for your VUS-100.



🍕 ₩US-100 Utility ₩1	.1.0		
Image: Status Image: System Image: System <td< td=""><td>General Settings Device Name UPnP</td><td>VUS-100</td><td>• Disable</td></td<>	General Settings Device Name UPnP	VUS-100	• Disable
		X Cancel	✓ Apply

Figure 7 Basic Settings

Device Name

You can specify the name of VUS-100 at will. Note that it is 15 characters at most and case-sensitive.

• UPnP

By enabling UPnP, VUS-100 is able to search for available network devices automatically, so as to establish connection with other network devices much faster.

IP Settings

You can specify and manage the IP address of VUS-100 in this page.



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🔦 VOS-100 Utility V1.	1.0	
Image: Status Image: System Image: System Image: Status Image: Status <t< td=""><td>IP Address Assignment IP O Obtain IP Address © Use Fixed IP Addr IP Address Subnet Mask Gateway IP Primary DNS Secondary DNS</td><td></td></t<>	IP Address Assignment IP O Obtain IP Address © Use Fixed IP Addr IP Address Subnet Mask Gateway IP Primary DNS Secondary DNS	
		X Cancel ✓ Apply

Figure 8 IP Address Assignment

Obtain IP Address Automatically

By checking this option, VUS-100 will request for an IP address from the network if being connected to the wireless network, then the DHCP server will select an idle IP from its IP pool and allocate it to VUS-100 after receiving this request.

Use Fixed IP Address

You have to manually specify the IP address, subnet mask, gateway IP, primary DNS and secondary DNS if check this option.

Note:

- When browsing the shared folders in LAN with VUS-100, the IP address of VUS-100 and the PC in LAN should be in the same network segment.
- When browsing Flickr network album with VUS-100, set an IP address for your VUS-100 to access the Internet.



Wireless Basic Settings

From the Utility, click Wireless -> Basic Settings in the left menu bar to make basic wireless

configuration for your VUS-100.

🍾 ₩US-100 Utility ₩1	.1.0		_ 🗆 🗙
Image: Status Image: System Image: System <t< td=""><td>Basic Settings</td><td>any</td><td></td></t<>	Basic Settings	any	
	Output Power	Full	
		∑ancel ✓ Apply	

Figure 9 Wireless Basic Settings

SSID

For AP and STA to identify a wireless network, SSID is composed of 32 ASCII characters at most and is case-sensitive. Keep the SSID on VUS-100 and AP identical for connection. By default, it is set to **any** which means VUS-100 will search and establish connection with the available AP of strongest signal strength.

Output Power

Specify the transmission power for VUS-100. The higher the output power is, the wider the wireless signal covers, whereas the power consumption grows accordingly. Usually, it is set to **Full**.



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Wireless Security Settings

🍾 ¥US-100 Utility ¥1.1.0 📃 🗆 🔀				
Image: Second structure System Image: System Wireless Image: Second structure Second structure Image: Second structure Site Survey Image: Second structure Site Survey <t< th=""><th>Security Auth-Type Encryption Key Passphrase Key Type Key 1 © Key 3 Õ</th><th>Open System None Generate Keys Hex Key 2 Key 4 Key 4 Key 4</th></t<>	Security Auth-Type Encryption Key Passphrase Key Type Key 1 © Key 3 Õ	Open System None Generate Keys Hex Key 2 Key 4 Key 4 Key 4		
1				

Figure 10 Wireless Security Settings

- Auth-Type (Authentication Type)
- Open System: Allows connection with any AP.
- Shared Key: Encryption and key are required.
- WPA-PSK: As a simplified WPA mode, there is no need for special authentication server. This
 WPA Pre-shared Key mode only requires to input a key in each WLAN nodes (AP, wireless router, adapter, etc) beforehand.
- WPA2-PSK: This is a new version of WPA. If it is enabled, AES encryption and passphrase are required.
- Encryption

Select a data encryption way. If it is enabled, key is required. And only share the same key with other wireless devices (AP), can the connection be established.

- None: Available only under open system.



- 64 bits: It is composed of 10 hex digits.
- 128 bits: It is composed of 26 hex digits.
- 152 bits: it is composed of 32 hex digits.
- TKIP: Short for Temporary Key Integrity Protocol, it is a dynamic encryption way co-used with WPA-PSK.
- AES: Short for Advanced Encryption Standard, it is usually co-used with WPA, WPA2, WPA2-PSK.

Note:

• Keep the Auth-Type, Encryption and Key in VUS-100 and its associated AP

identical, otherwise the connection may fail!

Site Survey

∓ <mark>≚</mark> Status	Site Su	irvey				
🗄 🜆 System	#	SSID	BSSID	RSSI(d	Chan	Mode 🔨
🗄 👔 Wireless	1	VLANTEST1	00:60:b3:18:19:22	-55	1	b/g/i
📲 📲 Basic Settings	2	PM_test	00:13:46:c8:3d:2e	-58	1	b/g
	3	Wireless	00:60:b3:1f:fa:3d	-56	1	b/g
🛛 🥑 Site Survey	4	G560_RD6_V	00:60:b3:25:90:0c	-75	1	b/g 🗏
Folders	5	hxjtest1	06:60:b3:1f:fa:3d	-56	1	b/g
+ flicht Flickr	6	WPATESTrt	00:60:b3:35:92:49	-60	1	b/g/i
E Management	7	VLANTEST2	06:60:53:18:19:22	-54	1	b/g/(
	8	dicky1	00:18:b3:00:18:b3	-79	6	b/g
	9	wqq	00:60:53:35:64:57	-72	6	b/g
	10	ZA-5000-1	00:60:Ь3:22:22:26	-71	6	b/g
	11	meshnetwork	00:60:b3:33:76:12	-81	6	b/g
	12	meshnetwork	00:60:b3:32:f0:a8	-63	6	b/g
	13	aimee	00:60:b3:ad:fb:d3	-86	6	b/g
	14	624PSK	00:14:6c:fe:36:6a	-72	11	b/g 🔽
	<					>

Figure 11 Site Survey

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The VUS-100 will search for available APs in LAN and establish connection automatically after being powered on. You can view the information of available APs in **Site Survey** from **Wireless**. Select the AP you would like to connect and click **Join** to establish connection.

Clicking **Refresh** allows you to view the real-time site survey list.

Wireless Connection Scenario

The following picture illustrates typical applications on VUS-100. It can be co-used with the digital photo frame, compatible Hisense LED TV or play station 3 as you wish.



Figure 12 Wireless Connection Scenario



Chapter 4 Browse Local Shared Folders

Auto-search Shared Folders in LAN

💊 ¥OS-100 Utility ¥1.1.0 📃 🗔 🔀			
Image: Status Image: System Image: System <tr< td=""><td>Enable Full Path User N</td><td>ame Password Status</td></tr<>	Enable Full Path User N	ame Password Status	
	<u>S</u> can <u>+ A</u> dd	X Del ✓ Apply	

Figure 13 Folders

- Open Folders in the left menu bar;
- By clicking Scan the VUS-100 will search all the available shared folders in LAN automatically.
- The scan result will be listed in the dialog box.

Browse Several Local Shared Folders Simultaneously

VUS-100 allows you to browse more than one shared folder simultaneously if there are several shared folders available in LAN.



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¥US-100 Utility ¥	
 € Status € System € System € Folders € fickr € Management 	Enable # Folder Name Full Path User Name Password Status ☑ 1 share1 \\192.168.1.56\share1 Guest ☑ 2 share2 \\192.168.1.56\share2 Guest ☑ 3 share3 \\192.168.1.56\share3 Guest
	<u>Scan</u> <u>+ Add</u> <u>X</u> <u>D</u> el ✓ Apply

Figure 14 Browse Several Shared Folders

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Chapter 5 Browse Flickr Network Album

Add/Delete Flickr Account

Click Flickr in the left menu bar to add or delete the account of Flickr network album.

🍾 ₩US-100 Utility ¥1.	1.0		
Status System System Folders Folders Fickr Account Management	Enable Flickr	Account Account Name Photo Set	 Enable All Authenticate include private

Figure 15 Flickr Account

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🔦 VUS-100 Utility V1	.1.0		
	Enable Flicki	Account Account Name Photo Set	 ✓ Enable admin All ✓ Authenticate ✓ include private

Figure 16 Add Flickr Account

After adding an account, you can browse the shared albums under this account; as to the private albums, please refer to Browse Private Flickr Network Album.



- The length of Flickr user name can not exceed 50 characters.
- Click "Apply" to save settings after adding or deleting, and reboot the device. •



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Maximum Photos to Return

🍕 VUS-100 Utility V1.1.0	
Image: Status Image: System Image: System <tr< td=""><td>Account Preference Photo Size C 75*75 © 500*500 C 100*100 C 1024*1024 C 240*240 C Original Photo Max photos to return 100</td></tr<>	Account Preference Photo Size C 75*75 © 500*500 C 100*100 C 1024*1024 C 240*240 C Original Photo Max photos to return 100

Figure 17 Maximum Photos to Return

Maximum Photos to Return

You can specify the number of photos to be browsed in this field, ranging from 1 to 500.

Besides from setting the maximum number, you can also specify the size of photos to be browsed.

The available size options are:

75×75, 100×100, 240×240, 500×500, 1024×1024, and Original Photo.

Note:

• Original Photo: You have to apply an authority from Flickr if you would like to view

the original photo. Usually this is a charge service.

Browse Private Flickr Network Album

You have to perform an authentication process on Flickr before browsing private Flickr network



album.

• Step 1. Add a Flickr account that you will use to browse the private album in Account Name

field;

🍾 ₩US-100 Utility ¥1.	1.0	
Image: Status Image: System Image: System <t< td=""><td>Enable Flickr Account Account Phot</td><td>■ Enable Name ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■</td></t<>	Enable Flickr Account Account Phot	■ Enable Name ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

Figure 18 Browse Private Flickr Network Album

• Step 2. Click Authentication to continue;



🍾 VUS-100 Utility V1	.1.0	
Image: Status Image: System Image: System <t< td=""><td>Authentication Click on the URL below to visit the auth page. Sign out firstly if you have alreay signed in then sign in again with your disired account name. http://www.flickr.com/auth-72157604050924779 Once you complete the auth process on flickr.com You will be given a 9 digit code, for example: 123-456-789. Enter the code below. 123 456 789 Complete Authentication</td><td></td></t<>	Authentication Click on the URL below to visit the auth page. Sign out firstly if you have alreay signed in then sign in again with your disired account name. http://www.flickr.com/auth-72157604050924779 Once you complete the auth process on flickr.com You will be given a 9 digit code, for example: 123-456-789. Enter the code below. 123 456 789 Complete Authentication	

Figure 19 Authentication

 Step 3. Click the link as shown above: http://www.flickr.com/auth-72157604050924779 to open Flickr website;

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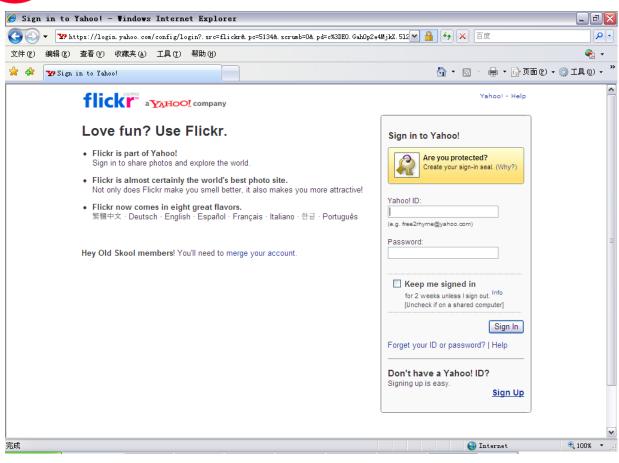


Figure 20 Login

Step 4. Input the Username and Password of account that you would like to browse. By clicking
 Sign In, you are entering into the confirm webpage as shown below:

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6 Flickr: Authorize listflickr - Windows Internet Explorer		_ 2 🛛
COO + http://www.flickr.com/services/auth/?mobile=1&api_key=3ac8622ef3ad5e0b8824722d4a1e7d668	perms=delete8 🖌 🔸 百度	[₽]
文件 (2) 编辑 (2) 查看 (2) 收藏夹 (4) 工具 (2) 帮助 (4)		e -
😭 🏟 🐽 Flickr: Authorize listflickr	🏠 • 🖻 - 🖶	• 📴 页面 ዊ) • 🍈 工具 @) • 🁋
flickr	Signed in as 🛛 🖾 H	elp Sign Out
Home You - Organize - Contacts - Groups - Explore -		Search -
Hi Admin		
listflickr wants to link to your Flickr account. You should not authorize listflickr unless you trust them with access to your account.		=
By authorizing this link, you'll allow the listflickr service to provide: Access to your photostream (including private stuff) Editing of your photo or video information via listflickr Uploads to your Flickr account via listflickr Deletion of content via listflickr OK, I'LL ALLOW IT	What's going on here? Flickr encourages other developers to build cool tools for you to play with, but you must authorize these third parties to access your account Want to know more? A wealth of information lies within the <u>Flickr Services</u> page.	
Your password will always remain private, but listflickr will have the permissions listed above until you revoke this link to your account. You can revoke account links at any time in <u>your account</u> .		
listflickr provides the following description:		
show my photos on the linux platform		~
(剩下1 项) 正在下载图片 http://farmO.static.flickr.com/0/api/3ac8622ef3ad5e0b8824722d4a1e7d66.gif	😚 🛛 🚺 Interne	et 🔍 100% 🔻 💡



Step 5. Click OK, I'LL ALLOW IT. •

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🏉 Flickr	Services -	Vindows Internet Explorer		_ @ 🛛
OO -	•• http://www.	flickr.com/services/auth/	▼ 4 × 百度	P -
文件(2) 编辑	竭(E) 查看(V)	收藏夹(4) 工具(1) 帮助(4)		🧞 ÷
🚖 🏟 🐽	Flickr Service	2	🟠 • 📓 - 👼 • 🛃 页面 🕑 • 🧯)工具(0) • "
	flick	VES YOU TM	Signed in as 🛛 🖂 Help Sign Out	<u>_</u>
	Home Y	′ou ▼ Organize ▼ Contacts ▼ Groups ▼ Explore ▼	Search -	
	You have su	ccessfully authorized the application listflickr to use your credentials. You should now	v type this code into the application:	
		879-864-323		
	Services	Get Started API Documentation Feeds		
	Activity	On Your Photostream Comments You've Made In Your Groups From your friends		
	You	Your Photostream Organize Upload Your Account Do More, Order Prints		
	Explore	Places Last 7 Days This Month Popular Tags The Commons Creative Commons Search		
	Help	Community Guidelines The Help Forum FAQ Tools Sitemap Help by Email		
	Flickr Blog	About Flickr Terms of Service Your Privacy Copyright/IP Policy Report Abuse	a 🔀 HOO! company	
		繁體中文 Deutsch English Español Français 한글 Italiano	Português	
		Copyright © 2008 Yahoo! Inc. All rights reserved.		
			😚 💊 Internet	🕄 100% 🔻 👾
	-		<u> </u>	

Figure 22 Code

• Step 6. Type the code that you get into the corresponding field of your Utility, and click **Complete** Authentication to finish the process. Now you can browse that private Flickr Network Album.



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🍾 VOS-100 Utility ¥1.1.0 📃 🗖 🔽			
Image: Status Image: System Image: System <t< td=""><td>Authentication Click on the URL below to visit the auth page. Sign out firstly if you have alreay signed in,then sign in again with your disired account name. http://www.flickr.com/auth-72157604050924779 Once you complete the auth process on flickr.com You will be given a 9 digit code, for example: 123-456-789. Enter the code below. 879 864 323 Complete Authentication</td><td></td></t<>	Authentication Click on the URL below to visit the auth page. Sign out firstly if you have alreay signed in,then sign in again with your disired account name. http://www.flickr.com/auth-72157604050924779 Once you complete the auth process on flickr.com You will be given a 9 digit code, for example: 123-456-789. Enter the code below. 879 864 323 Complete Authentication		

Figure 23 Input the Code

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Chapter 6 Management

View the VUS-100 Basic Information

In the Utility, click Status in the left menu bar to view the basic information of your VUS-100. Click

Refresh to view the real-time information. All is read-only.

💊 VUS-100 Utility VI	1.1.0	_ 🗆 🔀
Image: Status Image: System Image: System <t< td=""><td>Information Device Information Country/Region United States Device Name VUS-100 Network Information IP Address 192.168.1.1 Subnet Mask 255.255.255.0 Second DNS 0.0.00</td><td>Mac Addr 00:60:b3:dd:ee:ff FW Version 1.1.0 Gateway IP 192.168.1.254 Primary DNS 0.0.0</td></t<>	Information Device Information Country/Region United States Device Name VUS-100 Network Information IP Address 192.168.1.1 Subnet Mask 255.255.255.0 Second DNS 0.0.00	Mac Addr 00:60:b3:dd:ee:ff FW Version 1.1.0 Gateway IP 192.168.1.254 Primary DNS 0.0.0
	Wireless Information SSID any Connection 06:60:B3:18:19:22	Channel 1 Encryption DISABLED <i>B</i> efresh

Figure 24 Basic Information

View Statistics Information

In the Utility, click Statistics under Status in the left menu bar to view the data statistics of VUS-100.

Click **Refresh** to view the real-time information. All is read-only.



🔦 VUS-100 Utility Vi	1.1.0			_ 🗆 🔀
Status i Information Statistics System Folders	Statistics Wireless Packets Sent Error Packets Sent	0	Packets Received 0 Error Packets Received 0	
Hickr	Folders Bytes Sent	0	Bytes Received 0	
	Flickr Bytes Sent	0	Bytes Received 0	
			<u> 8 B</u>	efresh

Figure 25 Statistics

- Wireless: It illustrates the communication statistics with AP.
- Folders: It illustrates the communication statistics when browsing the shared folders in LAN.
- Flickr: It illustrates the communication statistics when browsing the Flickr network album.

Firmware Upgrade

VUS-100 provides you with multiple options for firmware upgrade.

Upgrade Firmware via Utility



🔦 VUS-100 Utility V1	.1.0	
	Upgrade Upgrade Firmware	
Management		Select Firmware File

Figure 26 Upgrade Firmware via Utility

- Click to open Management → Upgrade in the left menu bar;
- Click Select Firmware File and select the file you would like to upgrade;
- Start upgrade by clicking **Upgrade**;
- A prompt indicating successful upgrade will pop up after the firmware has been upgraded;
- Reboot VUS-100 to let the new firmware be applied.

Upgrade Firmware via Web

Select File:	Browse

Figure 27 Upgrade Firmware via Web

- Click to open Management → Upgrade;

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- Click Browse to select the file you would like to upgrade;
- Click Upload to start firmware upgrade;
- Reboot VUS-100 to let the new firmware be applied.

Backup/Restore Settings

It is strongly recommended backing up configuration information in case of something unexpected. If

tragedy hits the VUS-100, you may have an access to restore the important files by the backup.

VUS-100 provides two ways to backup and restore settings.

Backup/Restore Settings via Utility

. 1. 0	
Configuration File	
Reset to default settings	Reset
Export configuration file	🔚 <u>S</u> ave
Select configuration file	
	Den
	▶ <u>R</u> etrieve
	Configuration File Reset to default settings Export configuration file

Figure 28 Backup/Restore Settings via Utility

Backup Settings:

- Click to open Management → Config in the left menu bar;
- By clicking **Save** a dialog box will pop up, suggesting you select a save path and specify a file name, such as **C:\VUS-100.cfg**.



- After confirming, a **VUS-100.cfg** file will be saved in your local disk.

Restore Settings:

- A dialog box will pop up by clicking **Open**, suggesting you select the file that you want to restore, such as C:\VUS-100.cfg;
- Click Retrieve, that configuration file will be loaded to your VUS-100;
- A window suggesting reboot your VUS-100 will appear. After reboot, new settings will be applied into your device.

Backup/Restore Settings via Web

Configuration		
Save Settings to File:	Save	
Load Settings from File:		Browse Uploa
Reset Settings to Default:	Reset	
Reboot The Device:	Reboot	

Figure 29 Backup/Restore Settings via Web

Backup Settings:

- Click to open Management → Configuration;
- A dialog box will pop up by clicking Save, specify the path and file name, like vus-100.cfg;
- This vus-100.cfg file will be saved into your local disk by clicking Yes.

Restore Settings:

- A dialog box will pop up by clicking Browse;
- Select the file you would like to restore, like vus-100.cfg;
- This vus-100.cfg file will be restored into VUS-100 by clicking Upload;
- After automatic reboot, the new settings will be applied.



Restore Factory Default Settings

The VUS-100 provides three ways to restore factory default settings.

Restore Factory Default Settings via Utility

🍾 ¥US-100 Utility ¥1	.1.0	
	Configuration File Reset to default settings Export configuration file	<mark>√D</mark> R <u>e</u> set <u>⊨ S</u> ave
	Select configuration file	<u>©</u> pen ▶ <u>R</u> etrieve

Figure 30 Restore Factory Default Settings via Utility

- Click to open Management → Config in the left menu bar;
- By clicking **Reset** a window will pop up, suggesting you whether to restore factory default settings.
 Click **Yes** to start the process. It will take about 120 seconds.
- Restore Factory Default Settings via Web



Configuration			
Save Settings to File: Load Settings from File: Reset Settings to Default: Reboot The Device:	Save Reset Reboot	Browse	Upload

Figure 31 Restore Factory Default Settings via Web

- Click to open Management → Configuration;
- By clicking **Reset** a window will pop up, suggesting you whether to restore factory default settings.
 Click **Yes** to start the process.

• Restore Factory Default Settings via Default Button

When the VUS-100 is working with power switched on, press the default button for about 3 seconds, then the device will reboot and default settings will be applied.

Reboot

The VUS-100 provides two ways to reboot.

Reboot via Utility



🍾 ₩US-100 Utility ¥1.1.0		_ 🗆 🗙
Reboot System Vireless Folders Fickr Management Config Reboot	Are you sure to reboot the system ?	

Figure 32 Reboot via Utility

- Click to open Management → Reboot in the left menu bar;
- Please wait for about 120 seconds after clicking **Reboot**, till the reboot process is completed.
- Reboot via Web

Configuration			
Save Settings to File: Load Settings from File: Reset Settings to Default: Reboot The Device:	Save Reset	Browse	Upload

Figure 33 Reboot via Web

- Click to open Management → Configuration;
- By clicking **Reboot** a window will pop up, click **Yes** to start the process.



Chapter 7 Troubleshooting

FAQ (Frequently Asked Questions)

Q 1. How to know the MAC address of my VUS-100?

MAC address distinguishes itself by the unique identity among network devices. There are three ways available to know it:

- At the bottom of each VUS-100 posted a label with the MAC address, as shown below:
- From the VUS-100 utility, open Information in Status to view the MAC address;
- From the VUS-100 Web-based management, open Basic Information to view the MAC address.

Q 2. Why my VUS-100 fails to access the AP?

Please check the following settings on both your VUS-100 and the AP:

- Whether Country/Region is identical on both devices;
- Whether SSID is identical on both devices;
- Whether Encryption is identical on both devices;
- Whether you have rebooted your VUS-100 after configuration.

Q 3. Why can't I browse the shared folders in LAN?

- Whether the IP address of VUS-100 and PC in LAN are in the same network segment;
- Whether the folder name and path are correct;
- Whether the properties of shared folder is "Shared" and "Writable";
- Whether you have reboot your VUS-100 after configuration?

Q 4. Why can't I browse photos in Flickr network album?

- Whether the IP address of VUS-100 is a valid one that can connect to the Internet;
- Whether the Filckr account of the album that you are going to browse is correct;



- Whether the Filckr album that you are going to browse is a private one? If so, please apply for an authority;
- Whether you have reboot your VUS-100 after configuration?

Technical Support

Please go to http://www.zcom.com.tw for the latest firmware. If there is any problem or difficulty during installation and usage, please contact local vendor for support. Website: http://www.zcom.com.tw Support E-mail: supportBwa@zcom.com.tw Tel : +886-3-5777364

Fax: +886-3-5773359



Appendix A. Specifications

Table 3 Product Specifications

SPECIFICATION	
Model	VUS-100
Standards	 IEEE 802.11b (Wi-Fi Compatible) IEEE802.11g (Wi-Fi Compatible) IEEE802.11n (Wi-Fi Compatible) IEEE802.3af (Power over Ethernet) IEEE802.1x (Security Authentication) TCP/IP UDP ARP UPnP USB
Ports	1× USB Port1× Power
LED	 WLAN (Green) Status (Orange) WPS (Blue)
Button	 1× Default button 1× WPS Button
System Flash/RAM	8M Flash; 32M DDR
FEATURE	
Operating Mode	Client
DHCP	DHCP Client
Power Save	Manual Adjustment: Full, Half(50%), Quarter(25%), Eighth(12.5%), Min
SECURITY	
Administrator Logon	Administrator Logon with SSL/SSH Encryption
Authentication	 Open System Shared Key WPA with Pre-Shared Key WPA2 with Pre-Shared Key WPS (PBC)



Data Encryption	 WEP (40, 128, 152-bit) with Passphrase WEP Key Generation TKIP AES
SSID Broadcast	Yes
MANAGEMENT	
Web-based Management	Yes. Secure SSL
Windows-based Utility	Yes
Firmware Upgrade	Utility/ HTTP
Save & Load Configuration	Utility /HTTP The Configuration File is human-editable.
Adjacent AP/STA Scan	Yes (SSID, BSSID channel, mode(11b/11g/n), security mode)
RADIUS Accounting	Yes
WIRELESS	
Antenna	PCB Antenna *1
Output Power (average)	11b: 16dBm @ 11Mbps
	11g: 15dBm @ 54Mbps
	11n: 11dBm @ HT20
	11n: 11dBm @ HT40
Operating Frequency	2.412-2.462GHz
Modulation	IEEE 802.11g (OFDM/DSSS)
	48/54 Mbps (QAM-64)
	24/36 Mbps (QAM-16)
	12/18 Mbps (QPSK)
	6/9 Mbps (BPSK)
	5.5/11 Mbps (CCK)
	2 Mbps (DQPSK)
	1 Mbps (DBPSK)
	IEEE 802.11b (DSSS)
	5.5/11 Mbps (CCK)
	2 Mbps (DPQSK)
	1 Mbps (DBPSK)
Sensitivity	IEEE 802.11b: 11Mbps \leq -80dBm
	IEEE 802.11g: 54Mbps
	IEEE 802.11n: 2.4GHz
	$HT20 \cong -62dBm$
	HT40 \leq -59dBm
Wireless Auto Speed Option	IEEE 802.11b
	Best,11, 5.5, 2, 1 Mbps

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7F-2,No.9.Prosperity RD.I SBIP Hsinchu,300 Taiwan Tel:886-3-5777364 Fax:886-3-5773359

	IEEE 802.11g
	Best,54, 48, 36, 24, 18, 12, 9, 6 Mbps
	IEEE 802.11n Draft 2.0
ENVIRONMENT	
Dimensions	40(L)mmx70(W)mmx10(H)mm
Weight	<400g
Power Supply	DC Adapter : +5V DC@1A
Operating Temperature	0 ~ 55 ℃
Operating Humidity	10 ~ 95% Non-Condensing
Storage Temperature	-10 ~ 65 ℃
Storage Humidity	5 ~ 95% Non-Condensing
Green policy	RoHS Compliant
Warranty	12 months

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Appendix B. Technical Terms

Table 4 Technical Terms

Terms	Description
IEEE 802.11n	An extension to 802.11 specification developed by the IEEE for wireless LAN
	(WLAN) technology. 802.11n builds upon previous 802.11 standards by adding
	multiple-input multiple-output (MIMO). The additional transmitter and receiver
	antennas allow for increased data throughput through spatial multiplexing and
	increased range by exploiting the spatial diversity through coding schemes. The
	speed is 100 Mbit/s, and so up to 4-5 times faster than 802.11g. 802.11n also
	offers a better operating distance than current networks.
Access Point	A base station in a wireless LAN, which is typically a wireless Ethernet (Wi-Fi)
	LAN. It is typically a stand-alone device that plugs into an Ethernet switch or
	hub. If more than one access point is used, like a cellular phone system, users
	can roam with their mobile devices and be handed off from one cell to another.
WEP	Wired Equivalent Protection, is a kind of data encryption. WEP 40bits/128bits is
	the standard of IEEE 802.11. this encryption method enhances the security of
	wireless network.
DHCP, DHCP	DHCP, Dynamic Host Configuration Protocol. An Ethernet protocol specifying
Client, DHCP	how a centralized DHCP server can assign network configuration information to
Server	multiple DHCP clients. The assigned information includes IP addresses, DNS
	addresses, and gateway (router) addresses.
Encryption	To secure the communication between the wireless device and other devices,
	encryption is implemented to protect secret against attack.
IP Address and	IP Address is a four-byte number uniquely defining each host on the Internet,
Network Mask	usually written in dotted-decimal notation with periods separating the bytes (for
	example, 134.177.244.57). Ranges of addresses are assigned by Internet, an
	organization formed for this purpose. Combined with the IP address, the IP
	Subnet Mask allows a device to know which other addresses are local to it, and
	which must be reached through a gateway or router.
MAC	The Media Access Control address is a unique 48-bit hardware address
	assigned to every network interface card.
Router	A device that forwards data between networks. An IP router forwards data
	based on IP source and destination addresses.

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Appendix C. ASCII

WEP can be configured with a 64-bit or 128-bit Shared Key (hexadecimal number or ACSII). As defined, hexadecimal number is represented by 0-9, A-F or a-f; ACSII is represented by 0-9, A-F, a-f and punctuation. Each consists of two-digit hexadecimal.

Table 5 ASCII

ASCII	Hex	ASCII	Hex	ASCII	Hex	ASCII	Hex
Characte	Equivalen	Characte	Equivalen	Characte	Equivalen	Characte	Equivalen
r	τ	r	t	r	t	r	t
!	21	9	39	Q	51	i	69
"	22	:	3A	R	52	j	6A
#	23	;	3B	S	53	k	6B
\$	24	<	3C	Т	54	1	6C
%	25	=	3D	U	55	m	6D
&	26	>	3E	V	56	n	6E
í	27	?	3F	W	57	0	6F
(28	0	40	Х	58	р	70
)	29	А	41	Y	59	q	71
*	2A	В	42	Z	5A	r	72
+	2B	С	43	[5B	S	73
,	2C	D	44	١	5C	t	74
-	2D	E	45]	5D	u	75
	2E	F	46	٨	5E	v	76
1	2F	G	47	_	5F	w	77
0	30	Н	48	`	60	х	78
1	31	1	49	а	61	у	79
2	32	J	4A	b	62	z	7A
3	33	К	4B	С	63	{	7B
4	34	L	4C	d	64		7C
5	35	М	4D	е	65	}	7D
6	36	Ν	4E	f	66	~	7E
7	37	0	4F	g	67		
8	38	Р	50	h	68		

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Federal Communications Commission (FCC) Interference Statement

This device, IEEE 802.11b/g/n Wireless Media Adapter, complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

♦ This device may not cause harmful interference.

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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 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:

- 1. Reorient or relocate the receiving antenna.
- 2. Increase the separation between the equipment and receiver.
- 3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 4. Consult the dealer or an experienced radio/TV technician for help.

"This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation."

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.



Caution:

- 1. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment, under 47 CFR 2.1093 paragraph (d)(2).
- 2. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The IEEE 802.11b/g/n Wireless Media Adapter has been tested to the FCC exposure requirements (Specific Absorption Rate)