User Manual / Installation Guide
AV Over Ethernet Gigabit Adaptor
Model No. ZE7000

Warning! It will cause malfunction if the AV Adaptor is operating with unspecified power supply adaptor or incorrect power voltage. Do not expose this unit in the rain or moisture environment to reduce the risk of fire or electric shock.

PRECAUTIONS

- Do not use the “AV adaptor” and “Power supply Adaptor” near water.
- The “AV adaptor” is featured with 75mm x 75mm and 100mm x 100mm VESA mount.
  For easy and safe use, it is recommended to mount ”AV adaptor” on the rear cover of monitor with VESA mount.
- The “AV Adaptor” should be operated by an Ethernet cable with standard RJ-45 connector on both ends. One end to the “AV adaptor”, the other end to host PC or server.
- Never spill liquids on the “AV Adaptor”.
- Do not attempts to service ”AV adaptor” yourself; opening or removing covers can degrade product EMC and performance. Please refer all servicing to qualified service personnel.
- For Wall mount “Power supply adaptor”, wall socket shall be installed near the equipment and shall be easily accessible.

Content Index:

I. Introduction

ZE7000 Zero Client operates as a stand-alone computing model without local CPU, memory, :

-Connected to Host PC only with a Ethernet cable,

-Video, audio and USB functions are all communicated through this cable.

ZE7000 Zero Client decodes Video, Audio from Ethernet to USB, then with video, audio decoders to translate USB to video (for monitor), audio amplifier and microphone.

It also includes a USB Hub, with 4 USB2.0 downstream ports, upstream is internally communicated to Ethernet and connected to Host PC.

II. Features

- **Simple Ethernet connection for multiple extended displays**
  ZE7000 connect to Host server through Ethernet cable connection, this type of connection can exceed the length limit of other signal connection such as VGA, USB. This also gives the flexibility of system layout.
- **Easy and convenient installation**
  Designed with VESA standard mounting on the adaptor box;
  75mm x 75mm and 100mm x 100mm
- **Provides two types of video signals for end user to select**
  VGA (by an attached DVI to VGA dongle)
  DVI-D (through a DVI-D to DVI-D cable)
- **Reset:** To reset IP address
- **Audio Line out**
- **Headphone out**
- **Microphone in/ou**t

III. Unpack the Adaptor

- Put the AV Adaptor on a clean surface; make sure the box in upright position.
- Remove packing materials from inside of box.

IV. Check accessory

Please make sure the entire accessory is included:

DVI to VGA Dongle

DC 12V Power Adaptor

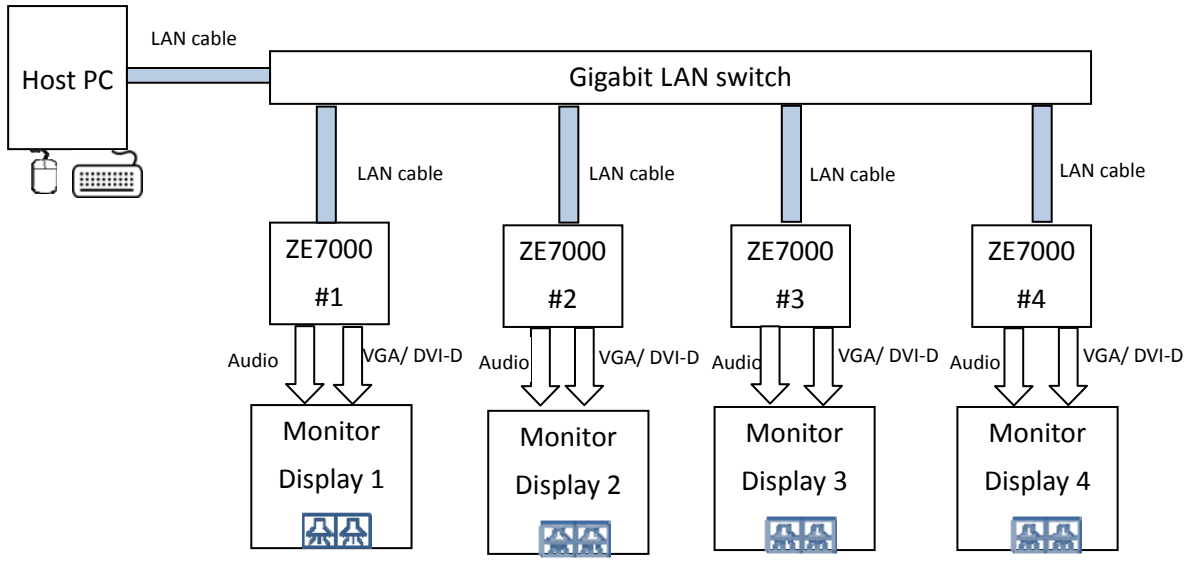
ZE7000 User Guide &
Driver CD

V. Recommended network application and setting:

The Phistek ZE7000 can be configured as below:

- **Microsoft Basic Extended Mode for multiple extended displays**

  Multiple extended displays block diagram : simple extended displays, no control center at Host PC



1. **Set Up Procedures:**

The ZE7000 Zero-Client: typically available directly from PHISTEK.

The host computer: should be scaled according to the usage scenarios

CPU	Intel i7	Intel i5	Intel i3	Inel Atom D525
DRAM	8G	8G	4G	2G
OS	Win 8.1, Win7	Win 8.1, Win7	POS Ready7	POS Ready2009
Video 1080p	8 sets(max)	6 sets(max)	0 set	0 sets
Video 720p	8 sets(max)	8 sets(max)	1 sets(max)	0 sets
Photo 1920x1080	8 sets(max)	8 sets(max)	4 sets(max)	4 sets(max)

The

LAN network switch: 10/100M or 1000M Ethernet, recommend Gigabit-Switched, and ideally having a dedicated switch per each cluster.

2. **Installation procedure:**

(1). Windows OS Preparations

(2). Turn on Microsoft NET. Framework:

(3). Drivers Installation:

Network USB Driver for ZE7000	Network_USB_Service_Setup_13_0731_1084
DisplayLink Driver for ZE7000	DisplayLink USB Graphics Software for Windows* V 7.6.M1 Download from DisplayLink website http://www.displaylink.com/downloads/windows

(4). Network IP address setting

Detail procedure description:

(1). Windows OS Preparations

Run Windows-Update and install all available updates.

Make sure to install the latest driver for the graphic card (applies to on-board as well)

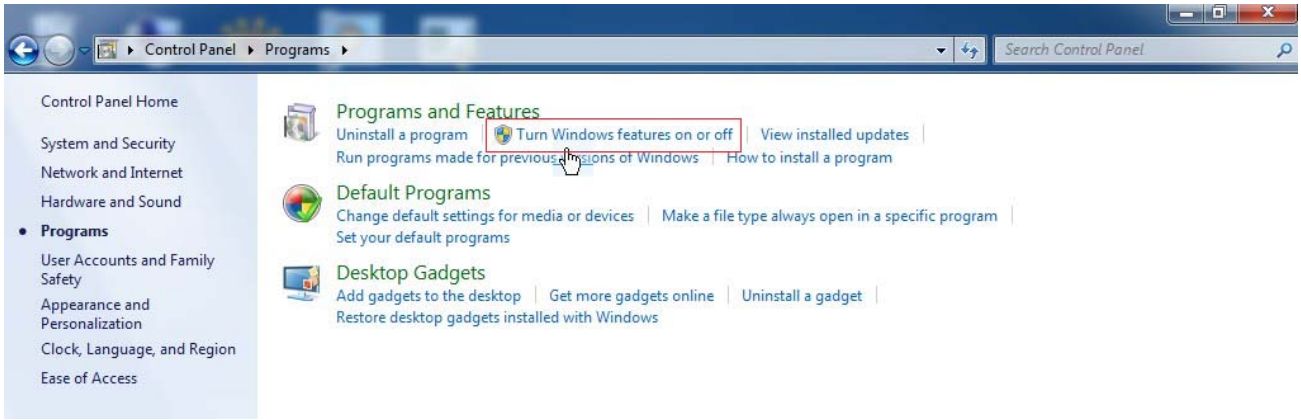
Turn off Windows-Update device driver searching

http://technet.microsoft.com/en-us/library/cc753091.aspx

(2). Turn on Microsoft NET. Framework:

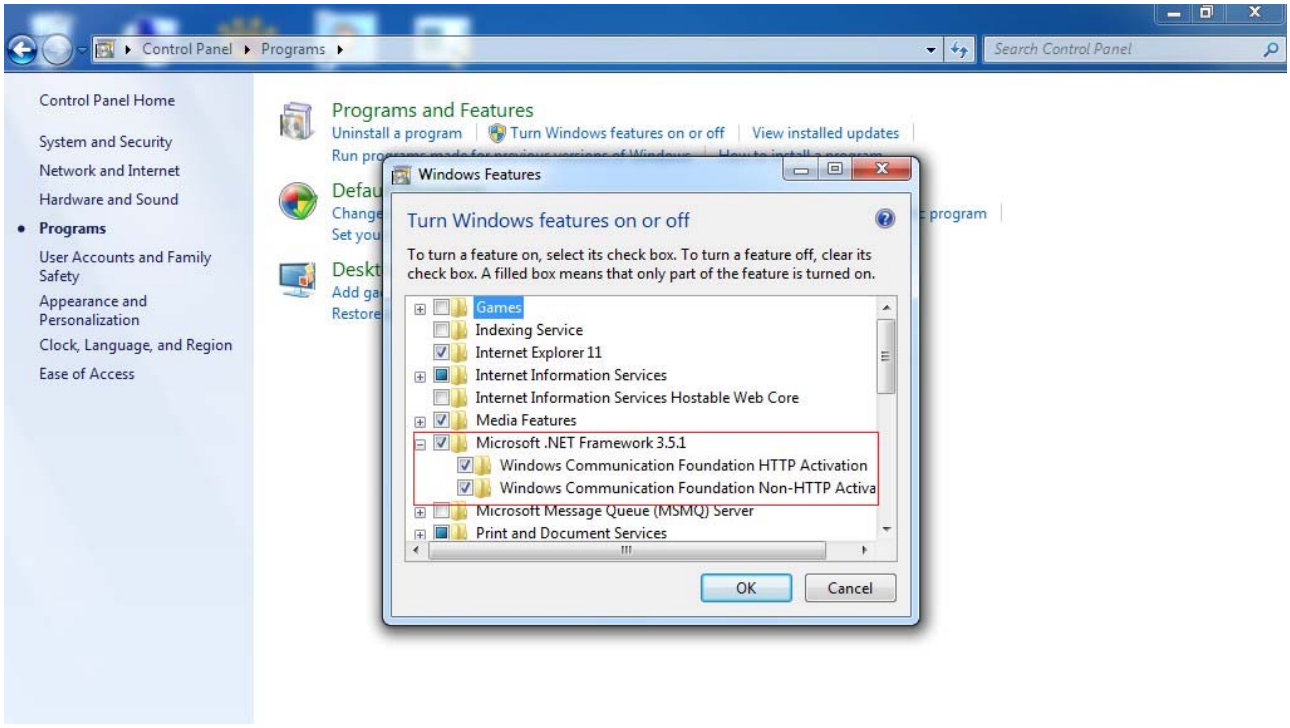
Click Control Panel to enter Programs.

In Programs, Please check " Turn Windows Features on or off"



Find and turn on Microsoft. NET Framework (it shall be later than 3.5.1 version)

Please see the Fig. below.



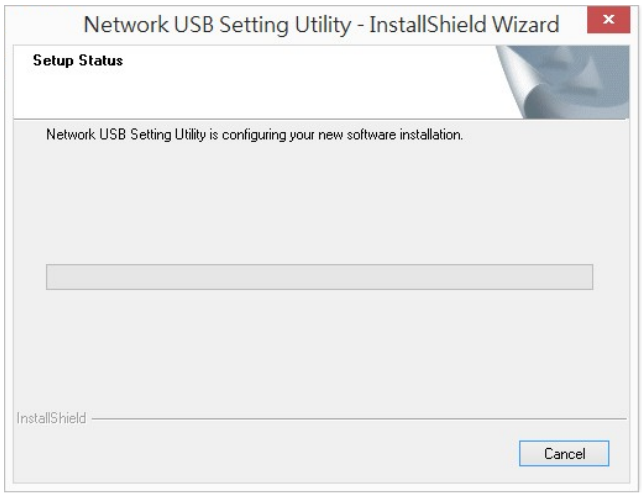
(3). Drivers Installation:

3.1 **Install Network USB Driver:**

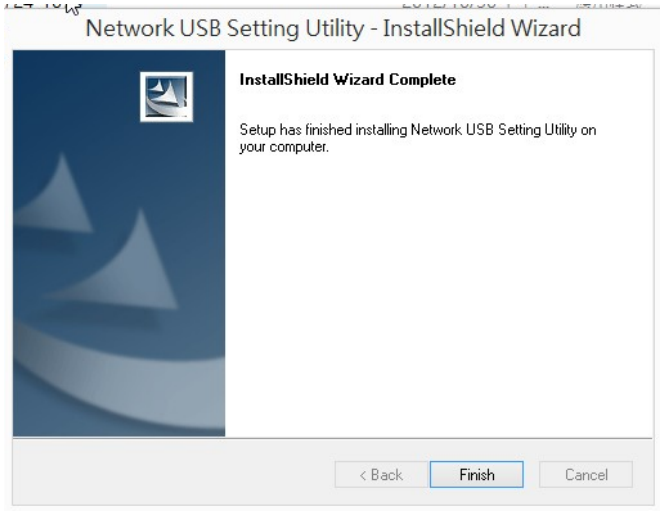
Click “Network_USB_Service_Setup_13_0731_1084”

Installation is automatically run as below:

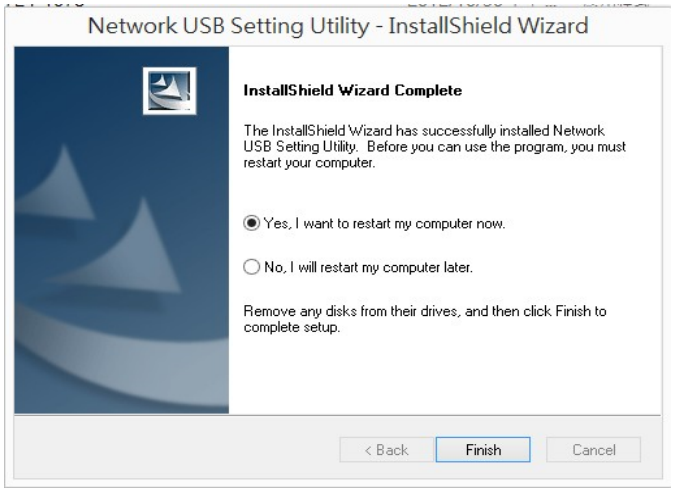
Software configuration proceeding……



After installation, screen will display as below, please press “Finish”



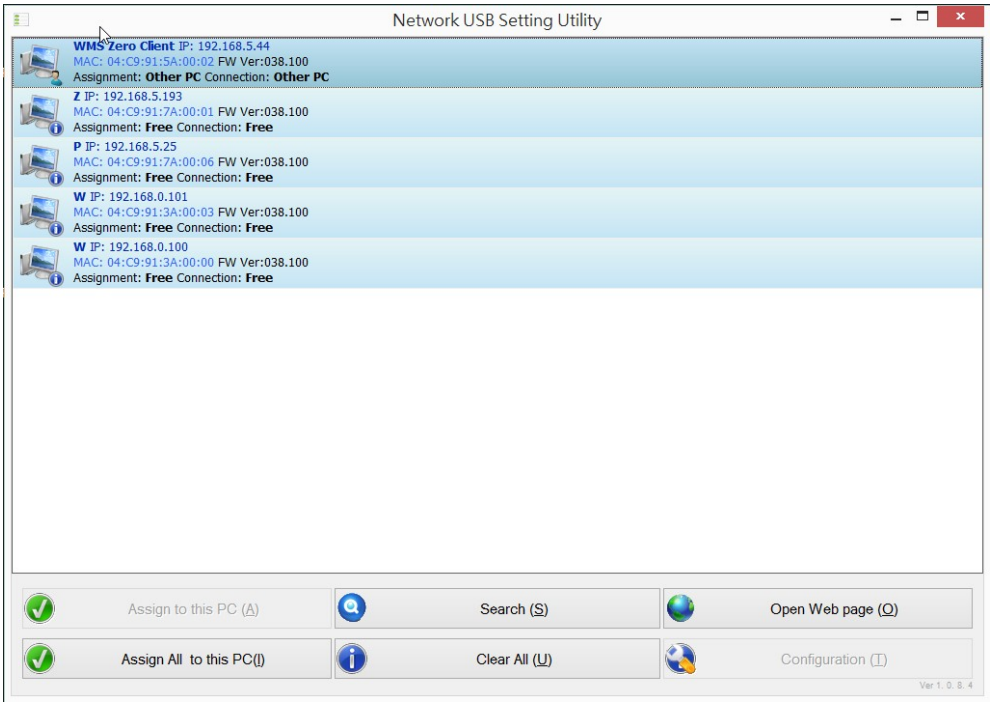
Screen will then display as below, please choose to restart your computer.



After Host PC restart, there will be a shortcut Icon on the screen desktop.

Click “Launch Network USB Setting Utility” shortcut will reveal the utility as below:

User can use this utility to assign/ clear connection, and configure IP address.



3.2 **Install DisplayLink USB Graphics Software**

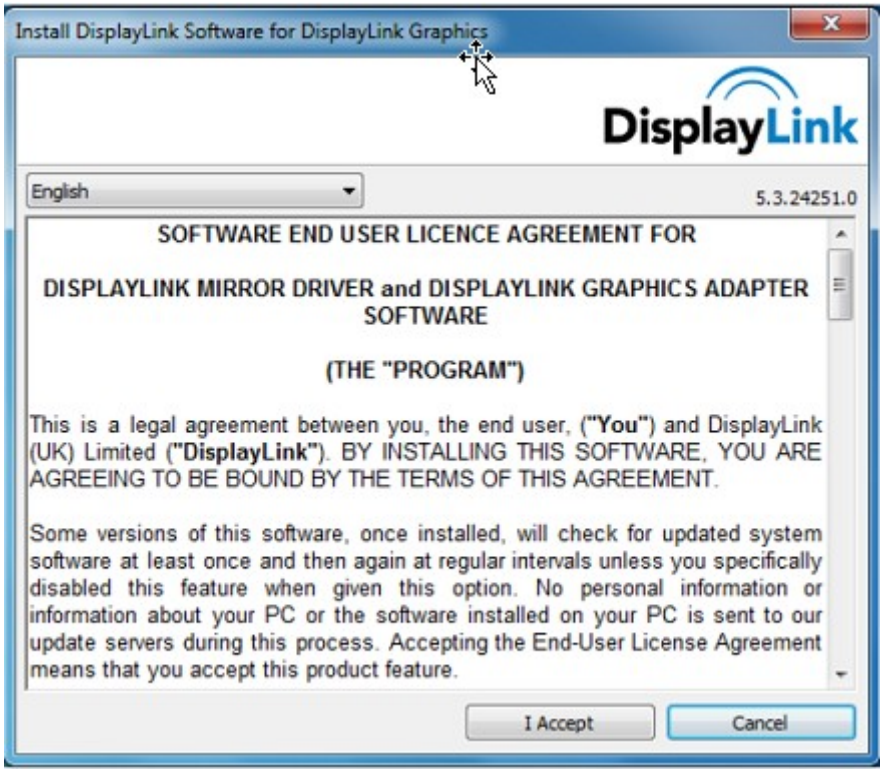
Note: ZE7000 support windows from windows XP to windows10

Please visit DisplaLink download website to get latest windows driver.

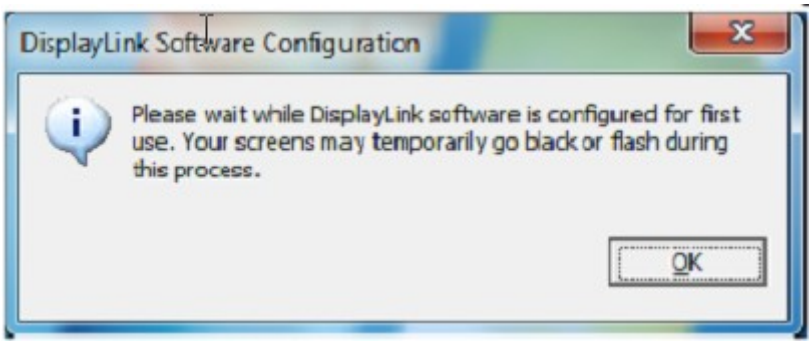
http://www.displaylink.com/downloads/windows

Example for window 7 driver; Windows* V7.6 M1 as below:

Click Installation The Displaylink software end user Licence agreement shown as below:



Click I Accept, the DisplayLink Core Software start to install



Displaylink USB Graphic software installation will complete without notification.

Note: On some computers you may need to reboot before you can use your Displaylink enabled device

(4). Network IP address setting:

- **Note: All zero clients' IP address shall be in the same segment**

  For example:

  Host PC: IP address=192.168.1.10, Subnet mask=255:255:255:0

  Zero clients shall be

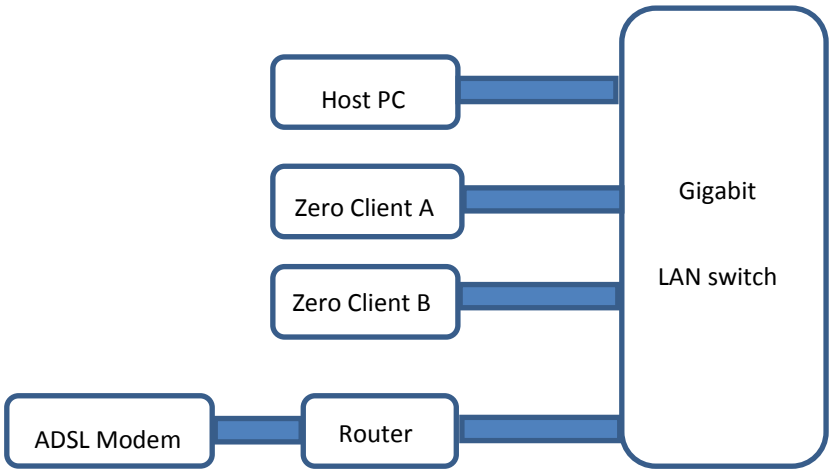
  IP=192.168.1.xxx, Subnet mask=255:255:255:0

- **There are two ways to set up IP address:**

  DHCP:

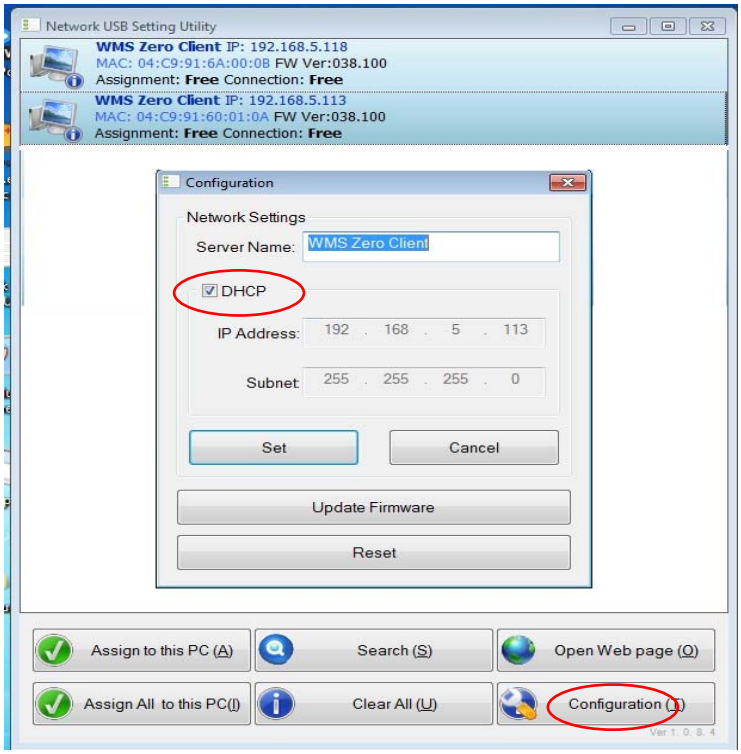
  See a general home network diagram below as an example:

  Connect Host PC and zero clients to a network switch(better to use Gigabit switch). The Router will automatically assign IP via switch to devices connect to this switch



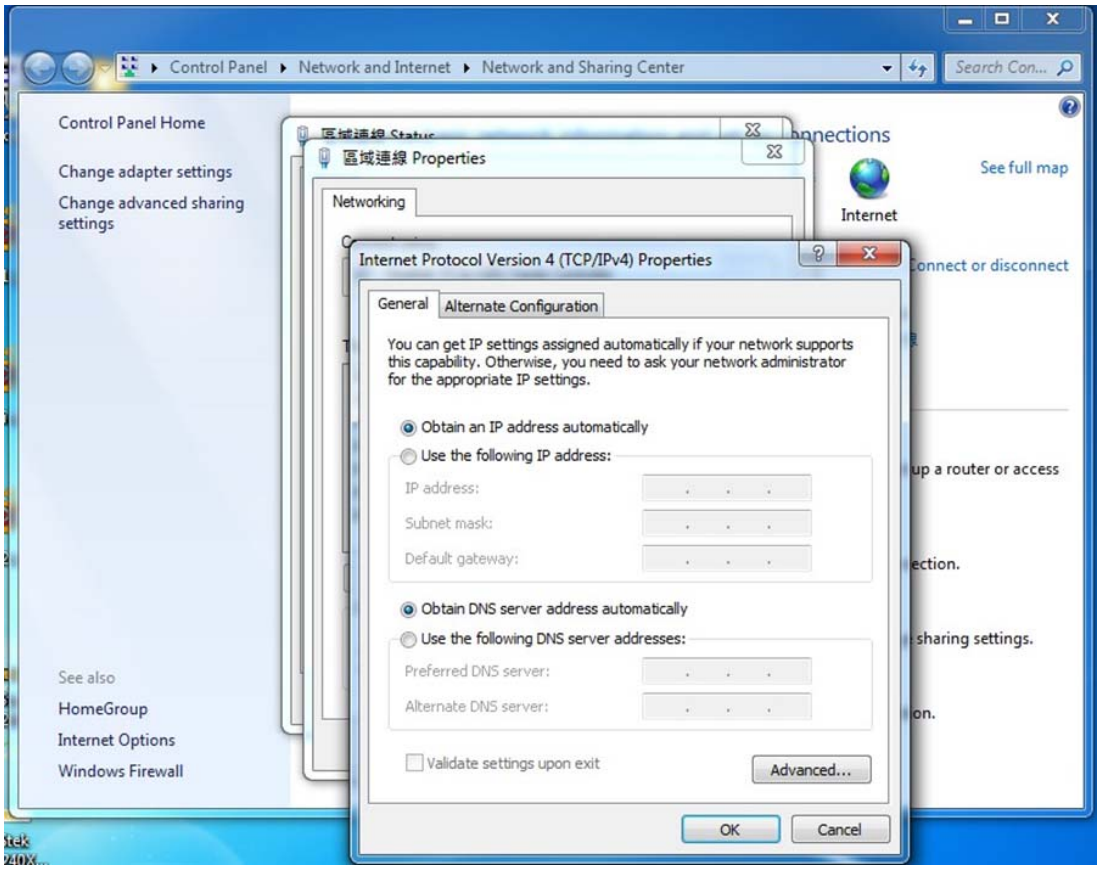
Check if zero clients are at DHCP status:

Click configuration, a set up table will appear, DHCP shall be ticked.

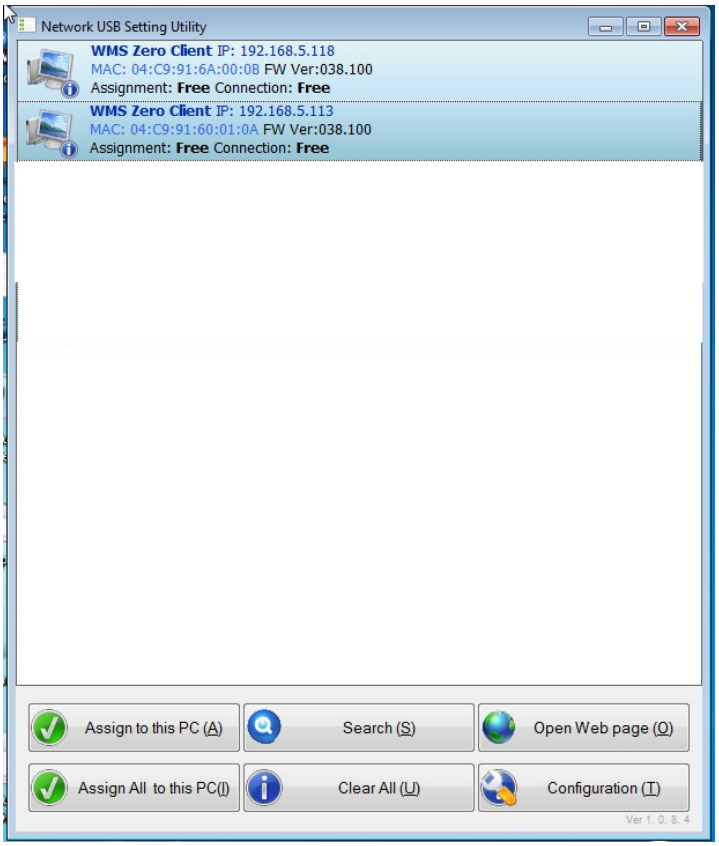


Set Host PC to DHCP: see below properties of IPV4

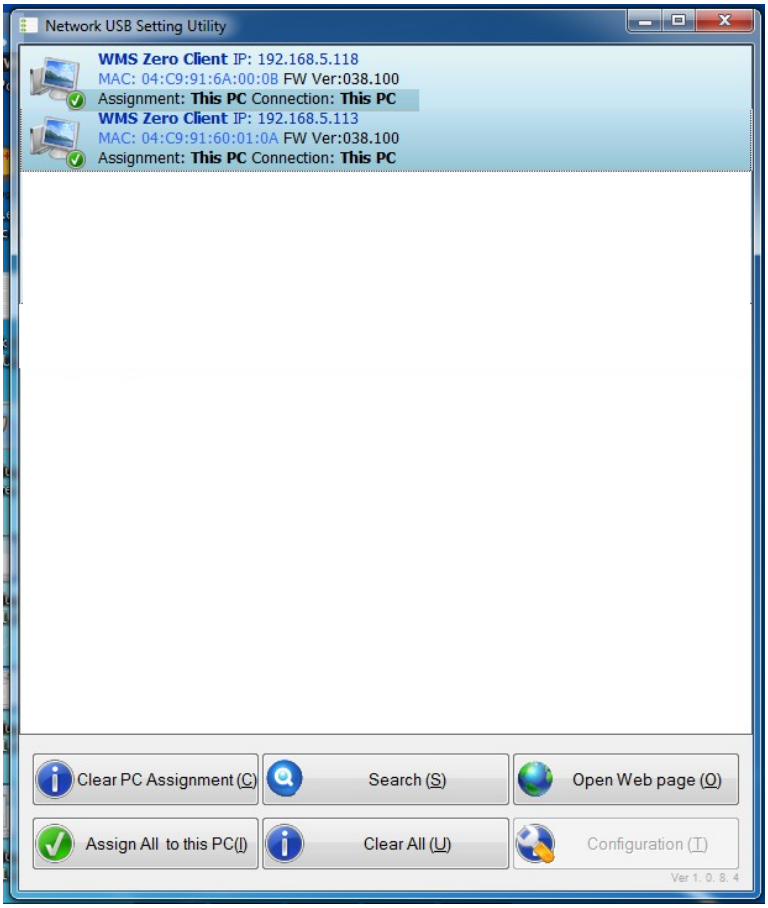
: tick “Obtain an IP address automatically



After all devices' IP address has been set up to DHCP, the router will assign IP automatically, the USB server utility will look like as below:

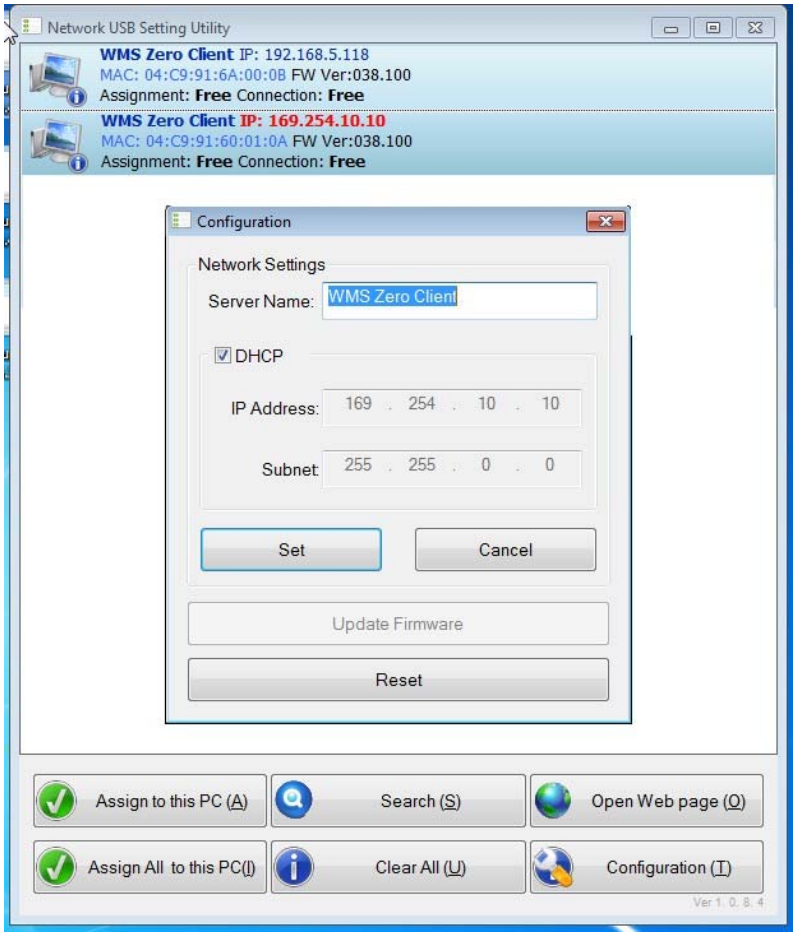


Click Assignment to this PC for each client, connection will be made:



If the client IP is not in the same segment, the IP address shown is RED, see example below:

Please tick “DHCP” to get DHCP IP.



Manual assign IP:

If the system is for local use(not connect to router to website),

you may also assign IP manually,

The IP address shall be in the same segment, and Subnet mask shall be the same.

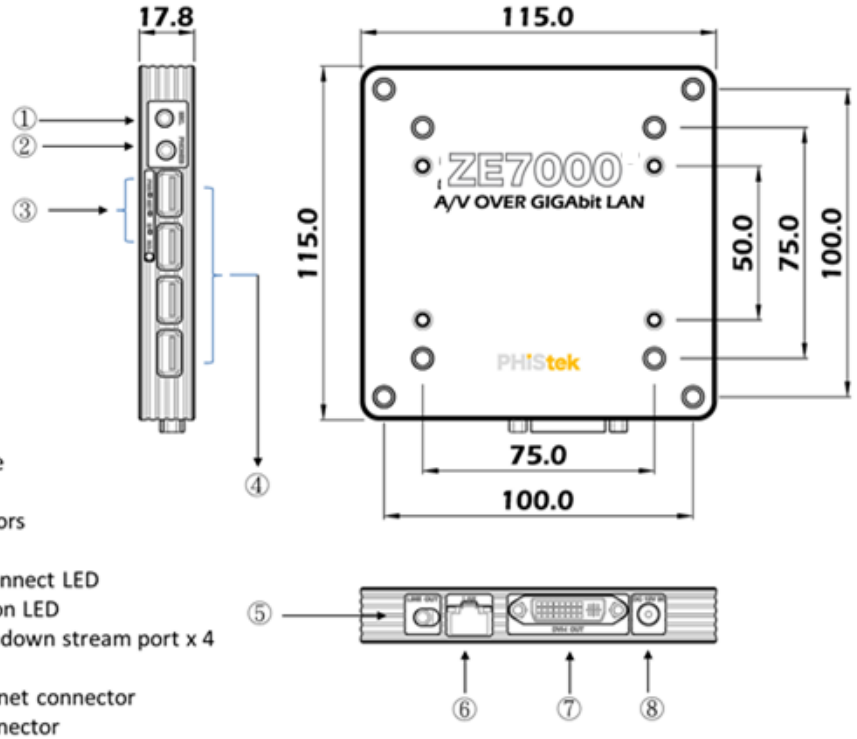
For example:

Host PC: IP=192.168.1.1, subnet: 255:255:255:0

Zero Client A IP=192.168.1.11, subnet: 255:255:255:0

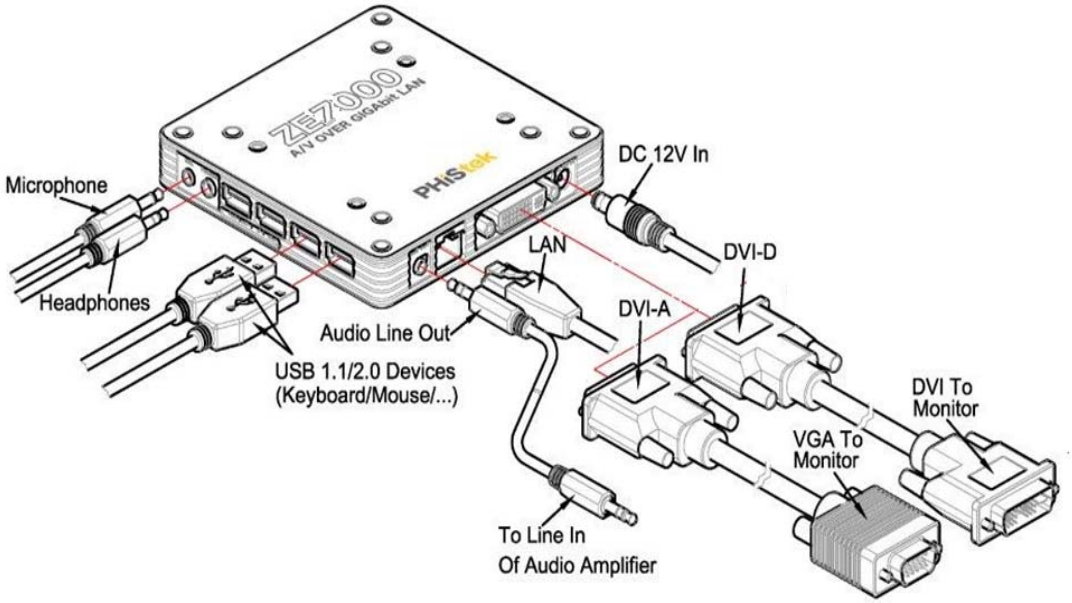
Zero Client B IP=192.168.1.12, subnet: 255:255:255:0.

VI. Product Outline and I/O Description: dimension(mm)



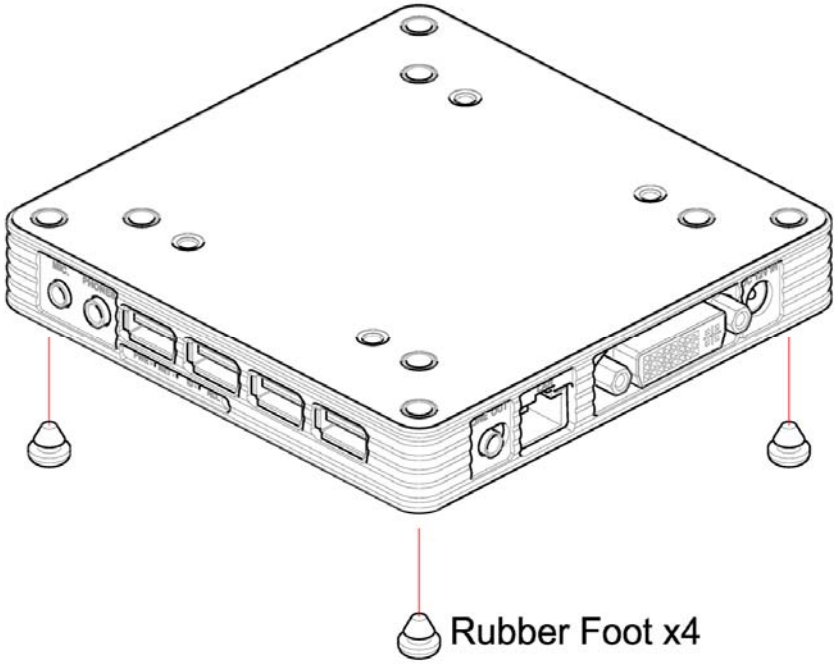
1. Microphone
2. Headphone
3. LED indicators
   Power LED
   Network connect LED
   Identification LED
4. USB A type down stream port x 4
5. Line out
6. RJ-45 Ethernet connector
7. DVI – I connector
8. DC 12 V in

VII. Product Input / Output Installation:

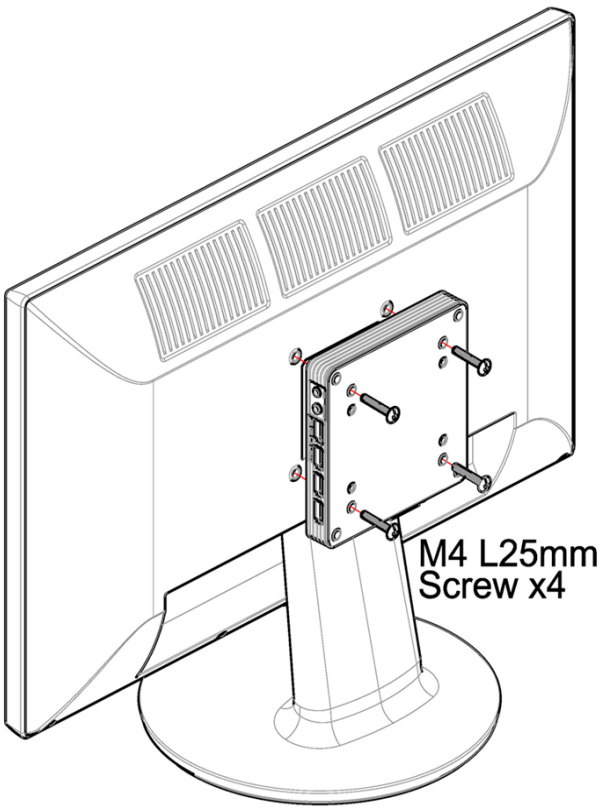


VIII. Zero Client Adaptor mounting method:

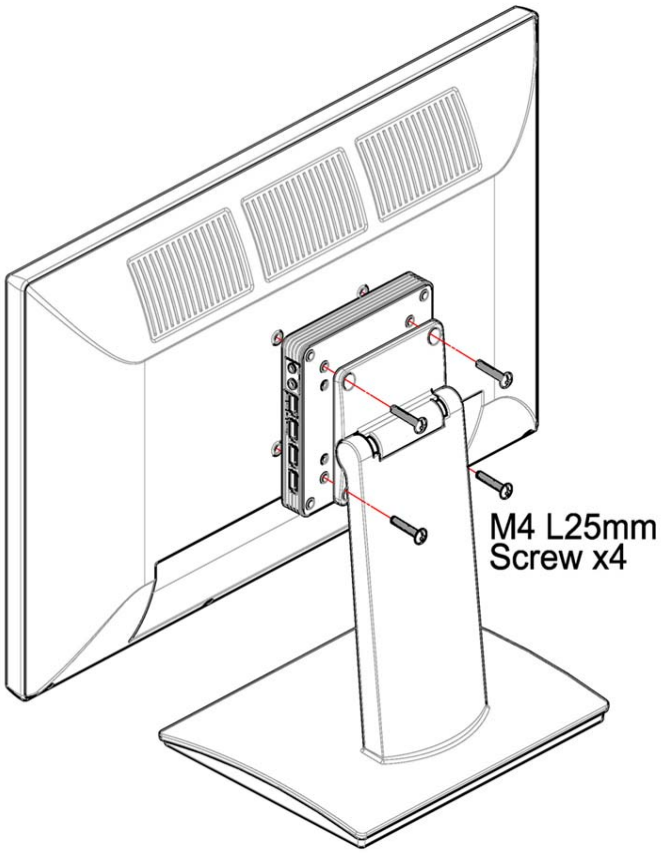
type 1



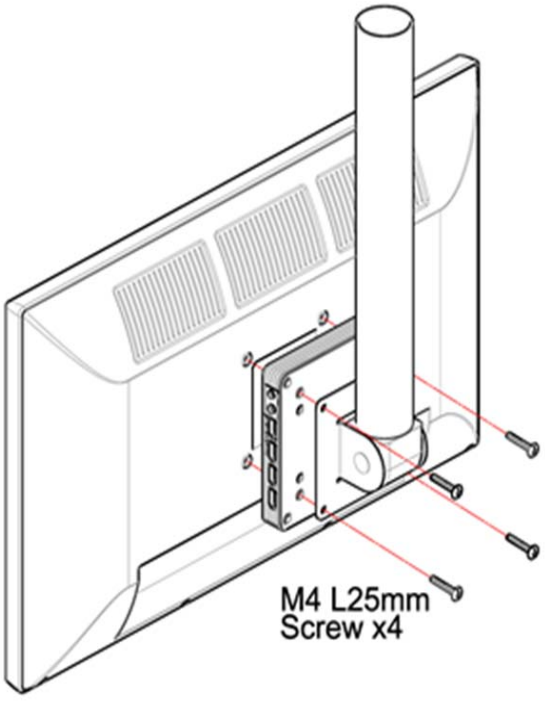
type 2



type 3



type 4



IX. EMC Warning Statement:

FCC Class A Warning

Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CISPR 22 Class A Warning

Warning **This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.**

X. Product General Specification:

Power	AC adaptor input	AC100V~240V, 50~60Hz
	DC power output	12Vdc @1.5A
	LED indicators	Yellow: to indicate power Adaptor attached
		Blue: to indicate device connected to Host PC
		Green: to indicate device identified
Input / output connectors	Ethernet input	x1 RJ-45, 10/100/1000Mb Ethernet
	USB downstream ports	x4 USB A type (USB 2.0)
	Video output	VGA DVI-D
	Video connector / Dongle	x1 DVI-I connector for DVI-D/ DVI-I Display x1 DVI-I to VGA Dongle for VGA Display Optional cable: X1 DVI-I to DVI-D cable for DVI Display
	Audio output 1	x1 Line out phone jack
	Audio output 2	x1 headphone
	Audio input	x1 Microphone
Video resolution	Max. Resolution	1920 x 1080
	Resolution by EDID	EDID read capability to provide different display timing mode resolution
Environmental	Operating temperature	0º C ~ 35º C
	Non-operating temperature	-30º C ~ 60º C
	Operating Humidity	10% ~ 90% (non-condensing)
	Non-operating Humidity	5 % ~ 95%
	Cooling	Fan-less
Mechanical	Mounting	4 VESA holes; 2 spaced at 100mm centers and 2 spaced at 75mm centers
	Dimensions W x D x H	115mm x 115mm x 17.8mm
	Weight	330g
Regulatory		FCC, CE,
Compliance		WEEE, RoHS