

Setup Guide

LionDATA AVX-IP-System



www.liondata-europe.com

1. Introduction

The LionDATA AVX-IP-System is a solution of Audio/Video extension over IP Ethernet LAN. The LionDATA AVX-IP Transmitter, the LionDATA AVX-IP-Receiver. The Transmitter connects with PC or any source with any 100M, Giga or Fiber Ethernet LAN switch can be used to interconnect the AVX-IP Transmitter and Receiver. They are flexible in one-to-one Unicast mode, or one-to-many/many-to-many Multicast mode.

1.1 Specification

Input video & resolution

Input video can be VGA or DVI-D in all standard resolutions from 640 x 480 to 1920 x 1200 @60Hz~70Hz and the following special resolutions 1440 x 900, 1400 x 1050, 1680 x 1050, 1360 x 768.

Output video & resolution

Output video can be VGA or DVI-F in all standard resolutions from 640 x 480 to 1920 x 1080@60Hz~70Hz and the following special resolutions 1440 x 900, 1400 x 1050, 1680 x 1050, 1360 x 768

Scalar support:

Allows difference input and output resolution, also support input-VGA/output DVI-D, input DVI-D/output VGA

LAN: 10/100Mbps, Auto-MDIX, Flow control.

IR Bridge: IR in/out, 38Khz. (Optional).

Remote PC Control: PS 2 or USB (optional).

Audio/Microphone: 48 KHz stereo Rs232, baud 2400~115200 (optional).

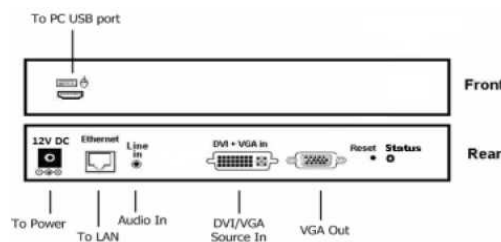
2. Installation Setup

2.1. Install LionDATA AVX-IP Transmitter

1. The DVI input of the LionDATA AVX-IP-Transmitter is **(DVI-I)** (VGA + DVI-D). You can use the accessory of VGA-to-DVI cable to connect the AVX-IP-Transmitter to PC VGA-Out. Or you can prepare a DVI-to-DVI cable to connect the AVX-IP-Transmitter to PC DVI-Out.
2. There is a **(VGA-Out)** on the LionDATA AVX-IP-Transmitter for the VGA loop-out. It is only available when the input video is DVI-A (or VGA). You can attach a VGA Monitor on the **(VGA-Out)** for local display.
3. Use accessory of audio cable to connect the AVX-IP-Transmitter **(Line-IN)** to PC Line Out.
4. Use optional accessory of Mini USB-to-A cable to connect the AVX-IP-Transmitter **(Mini USB)** to PC USB for keyboard/mouse remote control.
5. Use optional accessory of IR blaster cable to connect the AVX-IP-Transmitter **(IR Out)** and adjust the IR blaster LED face to the IR Receiver of you Media Center PC, TV tuner card or DVD player.
6. Use CAT5e/6/7 cable to connect the LionDATA AVX-IP-System **(Ethernet)** to the Ethernet switch (or directly to the AVX-IP-Receiver). All AVX-IP-Transmitter and all AVX-IP-Receiver must be put in the same network and should not be inter-connected with router.
7. Use the included 12V DC power adapter to connect the AVX-IP-Transmitter **(DC IN)** power socket and plug the power supply to wall.
8. There is a (Status) LED and 2 Rj45 LEDs on the AVX-IP-Transmitter, please refer to the below table for the status of the AVX-IP-Transmitter:

[Status] LED		RJ45 LED		Status
Red	Green	Green	Orange	
On				System OK, network is not connected
Blink			On	System failed
	On	On		System OK, network is connected
	On	On	On	System OK, network overload

9. The (Reset) button on the LionDATA AVX-IP-Transmitter Rear panel can be use for entering "Advance Setup Mode" Please refer chapter 4. The panel diagram is shown as right:

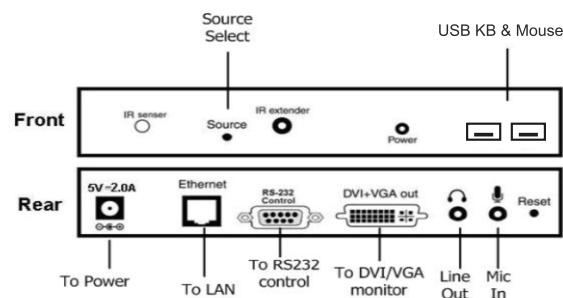


2.1 Install LionDATA AVX-IP Receiver

1. The DVI output of the LionDATA AVX-IP-Receiver is **(DVI-I)** (VGA + DVI-D). You can use the accessory of VGA-to-DVI cable to connect the LionDATA AVX-IP-Receiver to the monitor. Or you can prepare a DVI-to-DVI cable to connect AVX-IP-Receiver to the DVI monitor.
2. Use accessory of audio cable to connect the AVX-IP-Receiver **(Line Out)** to speaker and plug microphone into the **(Mic IN)** port.
3. If you need remote keyboard/mouse function, plug keyboard and mouse to the **(PS 2)** or optional **(USB)** port.
4. If you need remote RS 232 function, plug RS 232 cable to the **(RS 232)** port.
5. If you need remote IR function, connects optional IR Receiver cable to the **(IR extender)** port and positioned the receiver to be visible from the front of the Display.
6. Use CAT5e/6/7 cable to connect the LionDATA AVX-IP-Receiver **(Ethernet)** to the Ethernet switch (or directly to the LionDATA AVX-IP-Transmitter). All AVX-IP-Transmitter and AVX-IP-Receiver must be put in the same network and should not be inter-connected with router.
7. Connect the included power adapter to the DC-IN and plug the power supply to wall. To avoid damage to the LionDATA AVX-IP-Receiver, please use power adapter in the package.
8. There is a **(source)** button on the front panel for the system OSD operation menu. Please refer to chapter 3 for detail.
9. There ist a (Power) LED and 2 RJ 45 LEDs on the LionDATA AVX-IP-Receiver, please refer to the below table for the status of the AVX-IP-Receiver.

[Power] LED		[RJ45]		Status
Red	Green	Green	Orange	
Off				No Power
On				System OK, network is not connected
Blink			On	System failed
On		On		System OK, network is connected, but not able to link with Transmitter
	On	On		System OK, linked with Transmitter
On	On	On		System OK, dis-connected with Transmitter (the [Power] LED in orange color)
	On	On	On	System OK, network overload

10. The **(Reset)** button on the AVX-IP-Receiver Rear panel can be used for entering "Advance Setup Mode", please refer to chapter 4.



3 System Menu (OSD)

When the LionDATA AVX-Receiver is turned on, it will search all AVX-IP-Transmitter available on the network and show the system menu. Press the **(source)** button to select a AVX-IP-Transmitter. After the connection is established the AVX-IP-Receiver will display the screen that is connected to that AVX-IP-Transmitter.

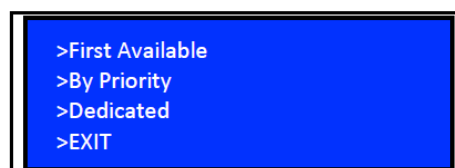
Pressing the LionDATA AVX-Receiver **(source)** button will bring you to the System menu.

When the **(source)** button of the LionDATA AVX-IP-Receiver is pressed, the system menu OSD will pop out. You can press the **(source)** button to navigate other System menu functions.

- 3.1. **VGA SYNC:** This function is only available when the AVX-IP-Transmitter is connected with VGA-input, when the picture shifts from screen, use this function to auto adjust the picture.
- 3.2. **REFRESH:** To refresh the LionDATA AVX-IP-Transmitter list.
- 3.3. **Transmitter Setting:** Use this function to setup AVX-IP-Transmitter.



- 3.3.1. **MULTI/ONE AVX-IP-Receiver:** To set a AVX-IP-Transmitter in Multicast mode (for one-to-many) or Unicast mode (for one-to-one).
- 3.3.2. **BANDWIDTH SETTING:** The AVX-IP-Transmitter has 3 levels of bandwidth: LOW, MID, HIGH. Please note to set LOW, it will use lower network bandwidth and get more efficient performance but will come with lower image quality.
- 3.3.3. **INFORMATION:** Show the AVX-IP-Transmitter/Receiver basic information.
- 3.4. **LionDATA AVX-Receiver OFF:** To disable the connection between the AVX-IP-Receiver and the currently connected LionDATA AVX-IP-Transmitter. To enable the connection, press the push button again.
- 3.5. **Connection Method:** The system provides 3 connection Method:



- 3.5.1. First Available:** This function sets the AVX-IP-Receiver to connect to the first available AVX-IP-HDMI-Transmitter which it found first.
- 3.5.2. By Priority:** This function sets the LionDATA AVX-IP-Receiver to connect to the AVX-IP-Transmitter according to the priority. You can set 1st and 2nd for different AVX-IP-Transmitter.
There are two sections, each has a list of all AVX-IP-Transmitters that are currently on the network; just press the **(source)** button to move the highlight to the desired Transmitter, wait a few seconds, and the settings will be saved and restart. The prefixed "*" indicate the AVX-IP-Transmitter with that priority setting.
- 3.5.3. Dedicated:** Set the AVX-IP-Receiver to connect with a dedicated AVX-IP-Transmitter

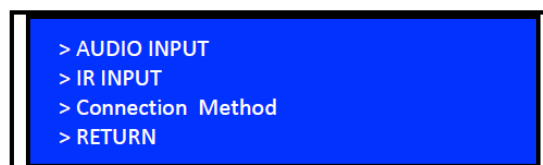
3.6 The LionDATA AVX-IP-Receiver Settings

From the menu, push the AVX-IP-Receiver **(source)** button and navigate to the ">REFRESH", push the **(source)** button again during the system is still showing "Searching AVX-IP-Transmitter...".

The menu will shown:

- > AVX-IP-Transmitter (192.168.168.201, 03:27)
- > REFRESH
- > AVX-IP-Receiver SETTING
- > AVX-IP-Receiver OFF

Push the **(source)** button again to navigate to the ">AVX-IP-Receiver SETTING", it will be shown the following OSD menu:



- 3.6.1. AUDIO INPUT:** To enable/disable the microphone input function.
- 3.6.2. IR INPUT:** There are 3 options for IR input:

IR DISABLE: Turn off the IR function.

INTERNAL IR: To set the IR receiver from internal socket.

EXTERNAL IR: To set the IR receiver from extension cable.

- 3.6.3. Connection Method:** Please prefer 3.5.

4. Advanced Setup

This section is in detail for how to assign IP Address for LionDATA AVX-IP-Transmitter and AVX-IP-Receiver.

4.1. Setup IP address

A HTTP server is embedded in the AVX-IP-Transmitter and AVX-IP-Receiver for changing IP. However the IP is available in **Setup Mode** only, not in **Normal Mode**.

For the AVX-IP-Receiver, there are 2 internal IP: the operation IP and configuration IP, The operation IP is changeable but the configuration IP is always fixed at 192.168.168.22.

For the AVX-IP-Transmitter, the operation IP is name as configuration IP. The factory default IP is shown on the label under the box. That means, you should remember the final IP, otherwise, you will not be able to configure the LionDATA AVX-IP-Transmitter.

Please follow below steps to configure the IP settings:

Step1: For AVX-IP-Receiver, assign your PC IP address in between 192.168.168.1 And 192-168.168.254, excluding 192.168.168.22, and the subnet mask with 255.255.255.0.

For AVX-IP-Transmitter, the factory default IP is shown on the label that stuck on the bottom of the AVX-IP-Transmitter. The PC IP address need to be on the same network as the AVX-IP-Transmitter. For example, if the AVX-IP-Transmitter IP is 10.100.1.10, you might set your PC IP address as 10.100.1.1 and the subnet mask as 255.0.0.0.

Step2: Unplug the power plug, hold the **(Reset)** button of the device.

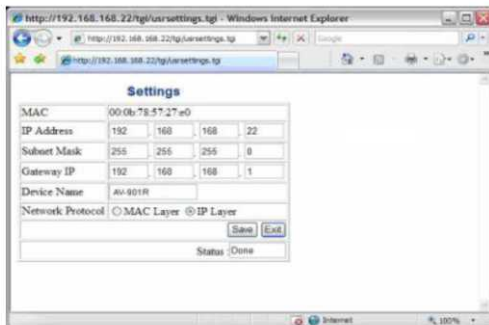
Step3: Keep holding the **(Reset)** button and plug power on

Step4: Release the **(Reset)** button when you see the **(Status)** (or **(Power)**)LED starts blinking red.

Step5: After the **(Reset)** button is released, in case of the AVX-IP-Receiver, the **(Power)** LED will become orange; in case of the AVX-IP-Transmitter, the **(Status)** LED will become orange blinking. This indicates the device is entered Setup Mode and you can start to setup and get access to the HTTP server of the device. If you are not in this status, any setup process is in vain.

Step6: Use a straight Ethernet Cable to connect the PC with the device. (The **(Status)** or **(Power)** LED is still lit in orange.)

Step7: Ping the connected device through the sequence, Start, Run, cmd, ping (Transmitter IP) or ping 192.168.168.22 (for AVX-IP-Receiver). If you receive the reply, it means the device is ready for setup mode. Use IE Browser to open the setup page. For AVX-IP-Receiver the URL is http://192.168.168.22. For AVX-IP-Transmitter the URL is http://(Transmitter IP). In this page you can setup IP address, subnet mask, gateway, device name, network protocol and destination.



Device Name: the name of the device

Network protocol: To be on the safe side, always use IP Layer, and don't use MAC Layer.

Destination: this setting is for AVX-IP-Transmitter only. For one-to-one application, you can use **Unicasting**. For one-to-many application, you must use **Multicasting**.

Step8: After click **(Save)** button, the settings will be saved and the device will restart.