

快速入门手册

AVX24-4 媒体汇聚Hub

(V1.0)



通过本手册，您可以了解到

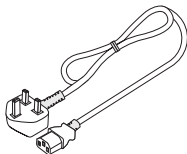
- 装箱清单
- 设备接口和功能
- 设备连接、登录和基本应用
- 设备升级和恢复出厂设置

在您正式使用本产品之前，建议您仔细阅读本产品使用说明书。为确保您的人身安全及避免设备受到物理或电气损伤，请严格遵照本说明书的指导或在专业人员指导下进行安装使用本产品。不正确的电气连接或物理安装方式将有可能造成设备的永久损伤，甚至威胁人身安全。由于产品不断升级更新，您所购买的产品可能与本手册的内容有所变更，请以包装箱内实际产品为准。

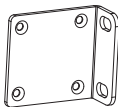
1 设备清单



(1) 主机 ×1



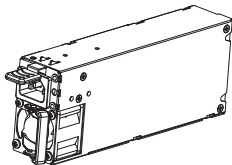
(2) 电源线 × 1



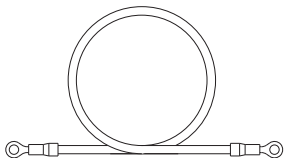
(3) 机架安装耳×4



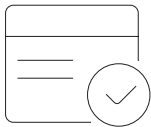
(4) 安装耳固定螺丝×20



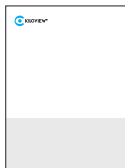
(5) 电源模块×1



(6) 接地线×1



(7) 合格证/保修卡×1



(8) 《快速入门》手册×1



注意

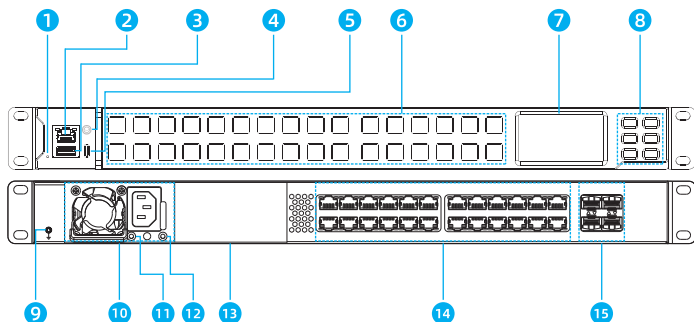
本设备内置双电源槽位，出厂预装 1 个电源模块。用户可根据业务可靠性需求，选配第 2 个电源模块实现冗余备份。

2 产品概述

AVX Media Hub 是一系列为广电、影视制作、直播环境等音视频领域设计的专业媒体智能控制连接器，提供高效、可靠的媒体流管理与网络控制。其核心功能聚焦于多路媒体流的智能路由与实时监控，适用于高密度、低延迟的专业应用场景，包括：

- 可视化网络拓扑：直观展示设备连接关系与状态，快速定位故障节点
- 网络及设备管理：高效管理网络内所有设备，包括设备连接情况及基本信息展示
- 诊断与监控：提供一键全局诊断和单设备诊断，快速定位问题；实时监控网络状态，异常时及时预警
- KLS 连接：连接 KLS 可拓展管控整个网络中的多台 AVX 设备及下连子设备,整个网络进行调整、监控及预警
- 矩阵切换：NDI 流无缝切换、多流分发，切换延迟可降低至亚微秒级别
- 自定义面板：支持外接面板，操作便捷，提升使用体验
- 访问策略：可设置灵活的访问策略，保障系统安全与权限管理
- 时钟同步：内置 PTP 时钟同步，具备纳秒级同步功能，确保音视频同步精准

3 设备接口



AVX24-4 Media Hub接口图

- | | |
|---|----------------------|
| (1) 设备运行指示灯x1 | (8) 控制按键x6 |
| (2) OOB管理端口x1（默认IP:192.168.0.168,用于Web管理） | (9) 地线接口 x1 |
| (3) USB3.0接口x1 | (10) 电源模块（主电源槽位） |
| (4) Line OUT x1 | (11) 电源模块DC状态指示灯x1 |
| (5) Type-C接口x1 | (12) 电源模块AC状态指示灯x1 |
| (6) 可视化可编辑水晶按钮x32 | (13) 电源模块（预留扩展槽位） |
| (7) LCD液晶显示屏 x1 | (14) 千兆以太网口（PoE+）x24 |
| | (15) 万兆SFP+光口x4 |



提示

OOB 的全称是 Out-of-Band，即“带外”，是在设备上单独预留的一个专用的管理接口，这个接口不参与业务数据的转发，管理 PC 通过这个独立通道连接交换机，与业务网络物理隔离。在浏览器输入 <https://192.168.0.168> 打开 Web 管理界面

4 按键

按键	按键功能	触发方式
▲ UP	向上	短按 / 单击 (<1 秒, 瞬时触发)
▼ DOWN	向下	短按 / 单击 (<1 秒, 瞬时触发)
○ OK	确认	短按 / 单击 (<1 秒, 瞬时触发)
↶ BACK	返回	短按 / 单击 (<1 秒, 瞬时触发)
🏠 HOME	回到主页	短按 / 单击 (<1 秒, 瞬时触发)
🔒 LOCK	锁定按钮/解锁按钮	长按 (≥ 3 秒, 持续触发)

5 指示灯说明

5.1 设备运行指示灯

位于前面板（接口编号1）

指示灯状态	含义	处理建议
白色闪烁	设备运行正常	无需处理
白色常亮	设备异常	检查系统状态或重启设备
熄灭	设备异常	检查电源连接及供电状态

5.2 电源模块指示灯

每个电源模块面板上均有两个指示灯：DC 状态指示灯和 AC 状态指示灯（见接口编号11、12）。两者状态一致：

颜色	状态	说明
白色	常亮	电源已连接
白色	熄灭	电源关闭或故障

5.3 网口灯（电口）

24个千兆电口（接口编号14），每个端口有两个指示灯。

位置	指示灯	状态说明
左侧	Link 灯（链路）	绿色表示已连接 不亮表示未连接或协商失败
右侧	ACT 灯（数据）	闪烁频率表示流量负载： 偶闪（几秒一次）：低负载(<10%) 规律中闪：中等负载(10-50%) 高频快闪：高负载(50-90%) 几乎常亮：满载(>90%)或异常

5.4 网口灯（光口）

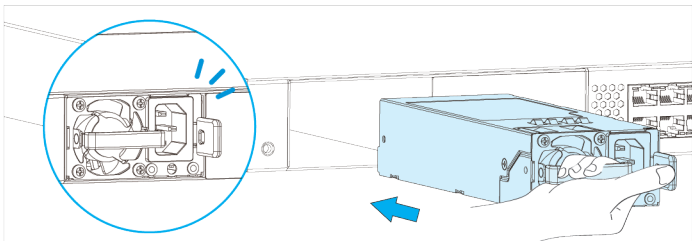
4个万兆 SFP+ 光口（接口编号15），每个端口的指示灯状态如下：

指示灯状态	含义	说明
绿色闪烁	链路正常，数据收发中	闪烁频率与流量相关
绿色常亮	链路正常，空闲状态	已建立连接但无流量
熄灭	链路异常	未插入模块、模块故障或对端未连接

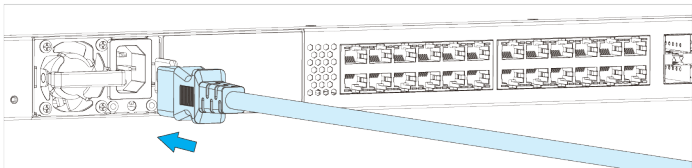
6 安装

6.1 电源安装

1. 安装电源模块时，请确保模块的贴纸标识面朝上，沿设备机箱后部的主电源槽位水平推入，直至听到清晰的“咔嗒”锁止声，表示模块已安装到位并锁定。



2. 连接电源线至已安装的电源模块并接通电源，即可完成上电操作。

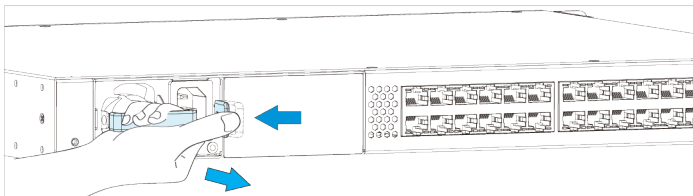


安全提示

- 设备出厂时默认配备一个 920W 电源模块，该模块必须安装于主电源槽位。
- 设备支持最多两个 920W 电源模块，可组成 1+1 冗余方案。两个模块均支持热插拔，可在设备运行状态下进行更换或增配。
- 为提高冗余供电的有效性，建议在部署双电源时，将两个电源模块分别接入不同的电源供应系统（例如不同的 UPS 或配电支路）。

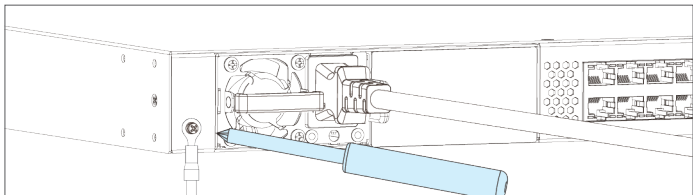
6.2 电源拆卸

拔出电源线，按住电源口上方卡扣，用手拉住电源风口外部的拉手，向外抽出电源。



6.3 接地

1. 找到交换机背面带接地符号 $\perp$ 的螺丝孔，把接地线带小圆环那头套上去，用螺丝刀拧紧。



2. 确认机架已可靠接地，并由专业人员操作。将接地线带大圆环那头接到机架背面的接地排任意空闲螺丝位，同样拧紧。

3. 拧紧后轻拉接地线确认无松动；若螺丝还能转动，则继续拧紧 1/4 圈，直到稳固不松动。



安全提示

接地操作涉及电气安全，建议由专业电工或具备资质的技术人员执行。操作前请确认机架已可靠接地，使用符合标准的接地线缆。不当操作可能导致设备损坏或人身伤害。

7 设备开机

步骤1：将电源线连接到设备的电源口，设备将立即进入启动程序。

步骤2：约30秒后，前面板LCD屏幕点亮并输出如下画面，代表设备已准备就绪，此时你还可以观察到设备运行指示灯开始闪烁。



8 查看设备信息

在设备的LCD显示屏首页，通过 ▲ 键和 ▼ 键可以切换网络,矩阵和系统模式，再按 ○ 键可查看相关下级页面信息。

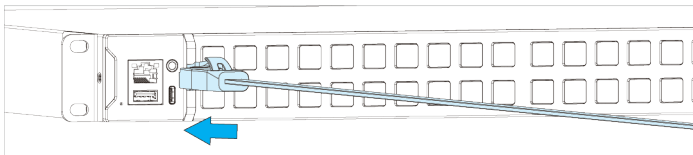


9 设备管理

除通过 LCD 屏幕快速设置外，设备还支持通过 Web 管理系统进行全功能操作与状态监控。

9.1 通过OOB接口登录 Web 管理界面

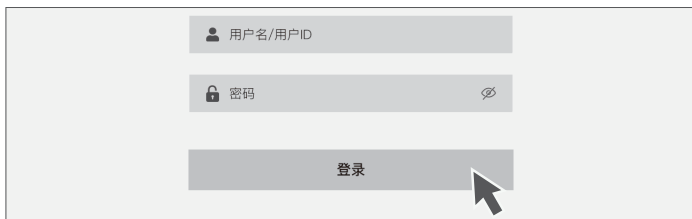
1. 请将网线一端接至 OOB 接口，另一端接至电脑。



2. 将电脑的IP配置成192.168.0.0/24网段（例如 192.168.0.100，子网掩码 255.255.255.0）。

3. 在电脑上打开浏览器，访问<https://192.168.0.168>。

4. 输入默认登录凭证：用户名：admin密码：admin，即可访问web管理后台。



注意

设备使用自签名证书，浏览器可能会提示不安全，请选择继续访问。



安全提示

● 为了您的账号安全，请初次登录后务必重置初始密码。

密码要求：

- 长度不少于 8 位
- 包含大小写字母、数字及特殊字符
- 建议定期更换密码（每 90 天）
- 请勿使用 admin、123456 等弱密码

9.2 通过普通网口登录 Web 管理界面

如果需要通过普通网口访问设备管理界面，请首先确认该网口所属的 VLAN，并通过接口 IP 地址进行访问。



提示



具体 VLANIF 地址查询方法请参考《AVX Media Hub 用户手册》。

<https://cn.kiloview.com/avx-media-hub>

9.3 Web 管理核心功能

登录后，您即可通过 Web 界面轻松完成以下核心操作：

- 集中管理所有接入设备，并查看实时运行状态
- 对所有接入设备进行诊断
- 执行 NDI 分发
- 管理用户权限、执行固件升级、查看日志等



提示



详细功能操作请查阅官方《AVX Media HUB 用户手册》

链接：<https://cn.kiloview.com/avx-media-hub>

10 固件升级

10.1 下载固件

Kiloview 将持续为 AVX Media HUB 提供问题修复以及更新。

访问：<https://www.kiloview.com/cn/support/download/> 在筛选列表中，选择 AVX，点击“下载”按钮下载。

10.2 升级固件

进入设备管理后台，点击“管理”>“系统设置”，找到固件升级模块。检查下载的最新软件版本是否高于当前软件版本，如果版本一致或更低，则无需升级。若要升级，“选择文件”上传从官网下载的固件文件，然后点击“固件升级”。

上传固件成功后，系统将提示重启，点击确认后设备将重新启动，请耐心等待，设备重启后，刷新WEB 管理界面，可重新进入后台。



升级注意事项

- 升级过程中请勿断电或断开网络连接，否则可能导致设备损坏
 - 请确保固件版本与设备型号匹配（AVX 24-4/24-4P 等）
 - 升级失败时，设备将自动回退至上一版本，请勿强制重启
 - 如升级后异常，请联系技术支持：support@kiloview.com
-

11 恢复出厂设置

如因设备参数配置不当导致设备不能正常工作，可以尝试恢复设备的出厂设置。进入设备管理后台，点击“管理”>“系统设置”，找到恢复出厂设置模块，即可。

12 注意事项



环境要求

- 设备应安装在干燥、通风的环境中，避免高温和潮湿；
 - 保持安装场所的清洁，防止灰尘积聚导致静电吸附，影响设备性能；
-



安全

- 在安装和使用设备时，务必遵守相关的电气规范，确保人身和设备安全；
 - 如设备长期不使用，为延长设备使用寿命，请拔掉电源，妥善保管设备；
 - 为保证信息安全，建议您首次登录后，立即修改密码！
-



获取更多关于 AVX Media HUB 的使用帮助请访问 Kiloview 官方网站地址

<https://cn.kiloview.com/products/ndi-sys/avx-media-hub/>

Quick Start Guide

AVX24-4 Media Hub

(V1.0)



This guide helps you learn about:

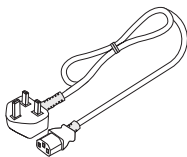
- Package Contents
- Device Interfaces & Functions
- Device Connection, Login & Basic Applications
- Device Upgrade & Factory Reset

Please read this manual carefully before using the product. For personal safety and to avoid physical or electrical damage to the device, install and operate the unit strictly following this guide or under the guidance of a professional. Improper electrical connections or physical installation may cause permanent damage to the device or even personal injury. Due to ongoing product updates, the purchased device may differ slightly from this manual; please refer to the actual product inside the package.

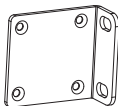
1 Package Contents



(1) Main Unit ×1



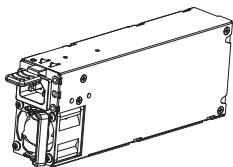
(2) Power Cord × 1



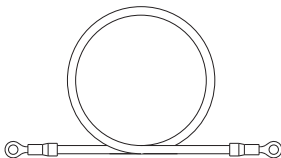
(3) Rack Mount Ears×4



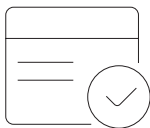
(4) Mounting Screws×20



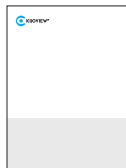
(5) Power Module×1



(6) Grounding Wire×1



(7) Quality Certificate / Warranty Card× 1



(8) Quick Start Guide × 1



Note

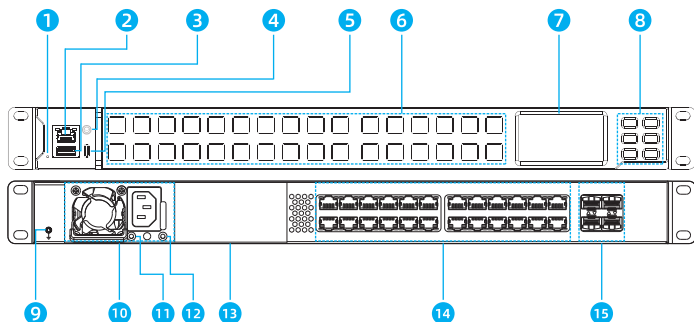
The device has dual power bays; one power module is pre-installed at the factory. You may optionally install a second power module for redundant backup based on service reliability requirements.

2 Product Overview

AVX Media Hub is a professional intelligent media management and routing platform designed for audio and video applications including broadcasting, video production, and live streaming. It provides efficient and reliable media stream management and network control. Its core functions focus on intelligent routing and real-time monitoring of multi-channel media streams, suitable for high-density, low-latency professional scenarios:

- Visual Network Topology: Intuitively displays device connections and status for fast fault node location
- Network & Device Management: Efficiently manages all devices on the network, including connection status and basic information
- Diagnosis & Monitoring: One-click global and per-device diagnosis for fast troubleshooting; real-time network status monitoring with anomaly alerts
- KLS Connection: Connect to KLS to manage and control multiple AVX devices and downstream sub-devices across the network, with global adjustment, monitoring, and early warning
- Matrix Switching: Seamless NDI stream switching and multi-stream distribution; switching latency down to sub-microsecond level
- Custom Panel: Supports external control panels for easy operation and improved user experience
- Access Policy: Flexible access policy configuration for system security and rights management
- Clock Synchronization: Built-in PTP clock synchronization with nanosecond-level precision to ensure perfect audio/video sync

3 Device Interfaces



AVX24-4 Media Hub Interface Diagram

- | | |
|---|--|
| (1) Device Status Indicator ×1 | (8) Control Buttons ×6 |
| (2) OOB Management Port ×1 (Default IP: 192.168.0.168 for Web management) | (9) Grounding Terminal ×1 |
| (3) USB3.0 Port ×1 | (10) Power Module (Main Bay) |
| (4) Line OUT ×1 | (11) Power Module DC Status Indicator ×1 |
| (5) Type-C Port ×1 | (12) Power Module AC Status Indicator ×1 |
| (6) Visual Programmable Buttons ×32 | (13) Power Module (Expansion Bay) |
| (7) LCD Display ×1 | (14) Gigabit Ethernet Ports (PoE+) ×24 |
| | (15) 10G SFP+ Ports ×4 |



Tip

OOB stands for Out-of-Band. It is a dedicated management port reserved separately on the device and does not carry service data traffic. A management PC connects to the switch through this independent channel, physically isolated from the service network. Open a browser and enter <https://192.168.0.168> to access the Web management interface.

4 Buttons

Button	Function	Trigger Method
 UP	Move Up	Short press / Single click (<1 second, momentary)
 DOWN	Move Down	Short press / Single click (<1 second, momentary)
 OK	Confirm	Short press / Single click (<1 second, momentary)
 BACK	Back	Short press / Single click (<1 second, momentary)
 HOME	Home	Short press / Single click (<1 second, momentary)
 LOCK	Lock / Unlock	Long press (2-3 seconds, continuous)

5 Indicator Explanation

5.1 Device Status Indicator

Located on the front panel (Interface 1)

Indicator Status	Meaning	Recommended Action
White Blinking	Device operating normally	No action required
White Solid On	Device abnormal	Check system status or reboot
Off	Device abnormal	Check power connection and supply

5.2 Power Module Indicators

Each power module has two indicators: DC Status and AC Status (Interfaces 11, 12). Both behave identically:

Color	Status	Description
White	Solid On	Power connected
White	Off	Power off or fault

5.3 Ethernet Port Indicators (Copper)

24 Gigabit copper ports (Interface 14). Each port has two indicators:

Position	Indicator	Status Description
Left	Link	Green: Link connected Off: No link or negotiation failure
Right	ACT	Blinking rate indicates traffic load: - Occasional blink: Low load (<10%) - Regular medium blink: Medium load (10–50%) - Fast frequent blink: High load (50–90%) - Almost solid on: Full load (>90%) or anomaly

5.4 Ethernet Port Indicators (Fiber)

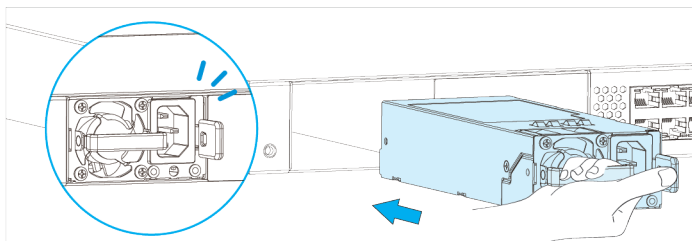
4 10G SFP+ ports (Interface 15):

Indicator Status	Meaning	Description
Green Blinking	Link up, traffic active	Blinking rate relates to traffic
Green Solid On	Link up, idle	Connected but no traffic
Off	Link abnormal	Module missing, faulty, or peer disconnected

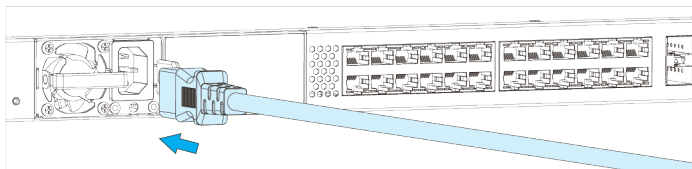
6 Installation

6.1 Power Module Installation

1. When installing the power module, keep the label side upward. Insert horizontally into the main power bay at the rear of the chassis until you hear a clear “click”, indicating the module is securely locked.



2. Connect the power cord to the installed power module and apply power to complete startup.

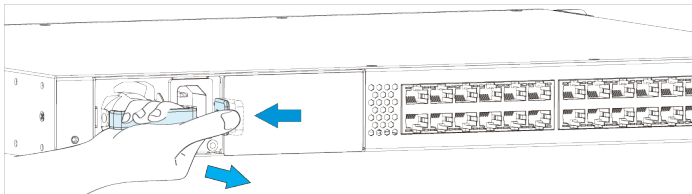


Safety Notes

- The device ships with one 920W power module, which must be installed in the main bay.
- The device supports up to two 920W power modules for 1+1 redundancy. Both modules are hot-swappable and can be replaced or added while the device is running.
- For effective redundant power supply, connect the two modules to different power sources (e.g., separate UPS or distribution circuits) when deploying dual power.

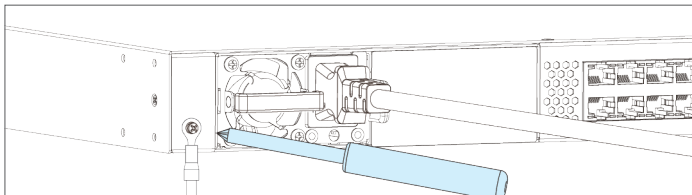
6.2 Power Module Removal

Disconnect the power cord. Press the latch above the power bay, pull the handle on the power module, and slide it out.



6.3 Grounding

1. Locate the screw hole marked with the grounding symbol $\perp$ on the rear of the device. Attach the small ring terminal of the grounding wire and tighten with a screwdriver.



2. Ensure the rack is properly grounded, performed by a qualified technician. Attach the large ring terminal to an available screw on the rack's grounding bar and tighten.

3. After tightening, gently pull the wire to confirm it is secure. If the screw still turns, tighten an additional 1/4 turn until firm.



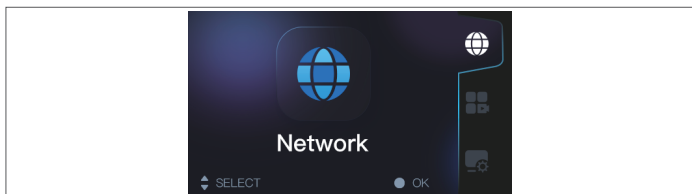
Safety Warning

Grounding involves electrical safety and should be performed by a certified electrician or qualified technician. Confirm the rack is properly grounded before operation and use standard-compliant grounding cables. Improper operation may cause equipment damage or personal injury.

7 Power On

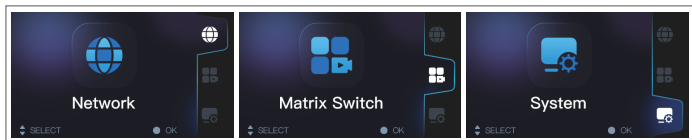
Step 1: Connect the power cord to the device. The device starts the boot process immediately.

Step 2: After about 30 seconds, the front-panel LCD lights up and displays the ready screen. The device status indicator begins blinking, indicating normal startup.



8 View Device Information

On the LCD home screen, use ▲ and ▼ to switch among Network Status, Matrix Switch, and System Config. Press ○ to view subpages.

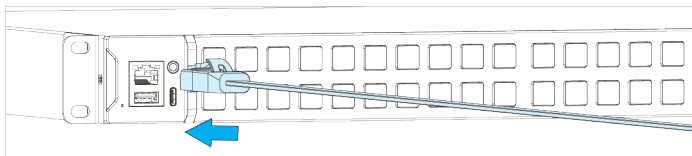


9 Device Management

In addition to quick setup via the LCD, the device supports full-featured operation and status monitoring through the Web management system.

9.1 Log In to Web UI via OOB Port

1. Connect one end of an Ethernet cable to the OOB port and the other to your computer.



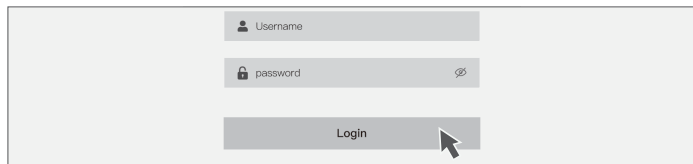
Note

The device uses a self-signed certificate; your browser may warn of insecure connection. Choose to proceed.

2. Set your computer's IP to the 192.168.0.0/24 subnet (e.g., 192.168.0.100, subnet mask 255.255.255.0).

3. Open a browser on your computer and visit <https://192.168.0.168>.

4. Enter default credentials: "Username: admin, Password: admin". to access the Web management backend.



Security Tips

- For account security, **reset the default password immediately after first login.**

Password requirements:

- At least 8 characters
- Include uppercase, lowercase, numbers, and special characters
- Recommended to change regularly (every 90 days)
- Avoid weak passwords such as admin, 123456, etc.

9.2 Log In to Web UI via Data Port

To access the device management interface through a data port, first confirm the VLAN to which the port belongs, and access using the corresponding interface IP address.



Tip



For detailed instructions on querying the VLANIF address, refer to the AVX Media Hub User Manual:

<https://www.kiloview.com/en/products/ndi-sys/connection-series/avx-media-hub/>

9.3 Web UI Core Functions

After logging in, you can conveniently perform the following core operations via the Web interface:

- Centrally manage all connected devices and view real-time running status
- Diagnose all connected devices
- Perform NDI stream distribution
- Manage user permissions, perform firmware upgrades, view logs, and more



Tip



For detailed function operations, refer to the official AVX Media Hub User Manual:

<https://www.kiloview.com/en/products/ndi-sys/connection-series/avx-media-hub/>

10 Firmware Upgrade

10.1 Download Firmware

Kiloview continuously provides bug fixes and feature updates for AVX Media Hub. Visit:

<https://www.kiloview.com/en/support/download/>

Select AVX from the filter list and click the Download button to obtain the firmware.

10.2 Upgrade Firmware

Go to the device management backend: Management > System Settings, and locate the firmware upgrade section. Check whether the latest downloaded firmware version is newer than the current version. If the version is the same or older, no upgrade is needed. To upgrade: select the downloaded firmware file, then click Firmware Upgrade. After successful upload, the system will prompt for a reboot. Click Confirm and wait for the device to restart. After reboot, refresh the Web UI to log in to the backend again.



Upgrade Precautions

- Do not power off or disconnect the network during the upgrade; otherwise, device damage may occur.
 - Ensure the firmware version matches the device model (AVX 24-4 / 24-4P, etc.).
 - If the upgrade fails, the device will automatically roll back to the previous version; do not force a reboot.
 - For abnormalities after upgrade, contact technical support: support@kiloview.com
-

11 Factory Reset

If the device malfunctions due to incorrect configuration, you can try restoring factory default settings. Go to the device management backend: Management > System Settings, find the factory reset section, and execute the reset.

12 Warnings



Environment Requirements

- Install the device in a dry, well-ventilated area away from high temperature and humidity.
 - Keep the installation area clean to prevent dust buildup and electrostatic adsorption, which may affect performance.
-



Safety

- Comply with relevant electrical specifications during installation and use to ensure personal and device safety.
 - For long-term storage, unplug the power cord to extend service life.
 - To ensure account security, change the default password immediately upon first login!
-



For more help with AVX Media Hub, visit the official Kiloview website: <https://www.kiloview.com/en/products/ndi-sys/connection-series/avx-media-hub/>