

# 快速入门手册

## RN-3 视频编解码卡板

NDI FB 全能编解码卡

(2021-11 版)

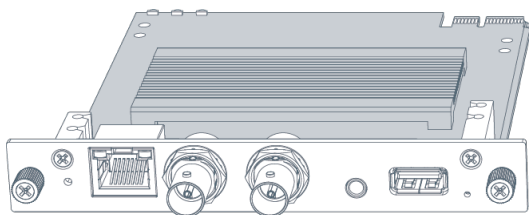


### 通过本手册，您可以了解到

- 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。

# 1 设备清单



(1) 主机×1

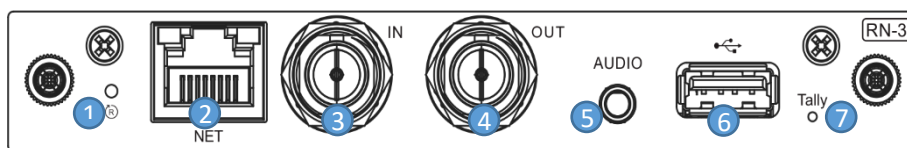


(2) 合格证/保修卡×1



(3) 《快速入门》手册×1

# 2 设备接口



(1) 复位按钮

(2) 100/1000M 自适应以太网口

(3) SDI 输入

(4) SDI 输出

(5) 3.5mm line in/out

(6) USB 扩展口

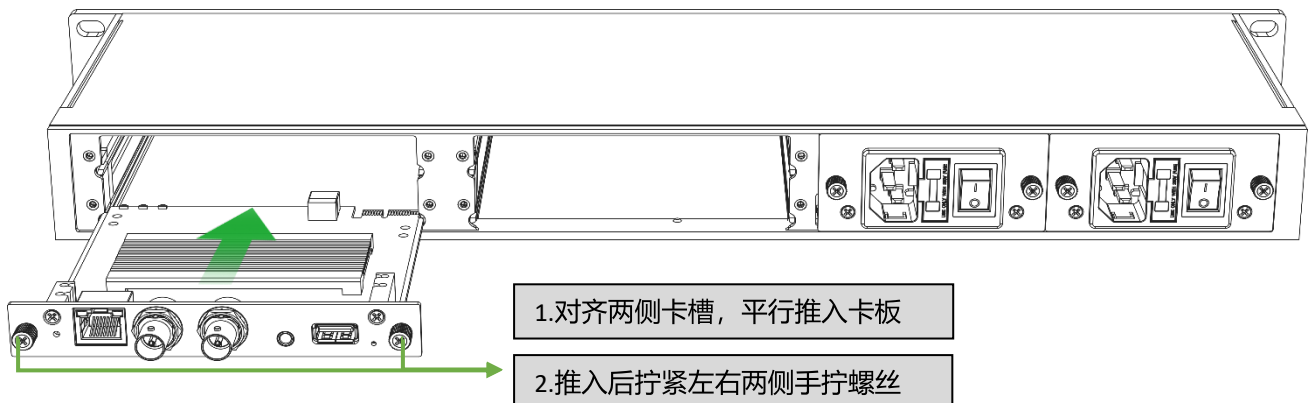
(7) Tally

### 3 卡板指示灯

编码模式下用于指示当前视频的状态	
Tally	绿色常亮 指示当前视频处于PVW预览状态
	红色常亮 指示当前视频处于PGM输出状态

### 4 RN-3 板卡安装

将卡板组件对齐两侧卡槽，平行推入后拧紧左右 2 个手拧螺丝，卡板安装完成；拆卸时，将左右两个手拧螺丝松开，平行抽出卡板组件。

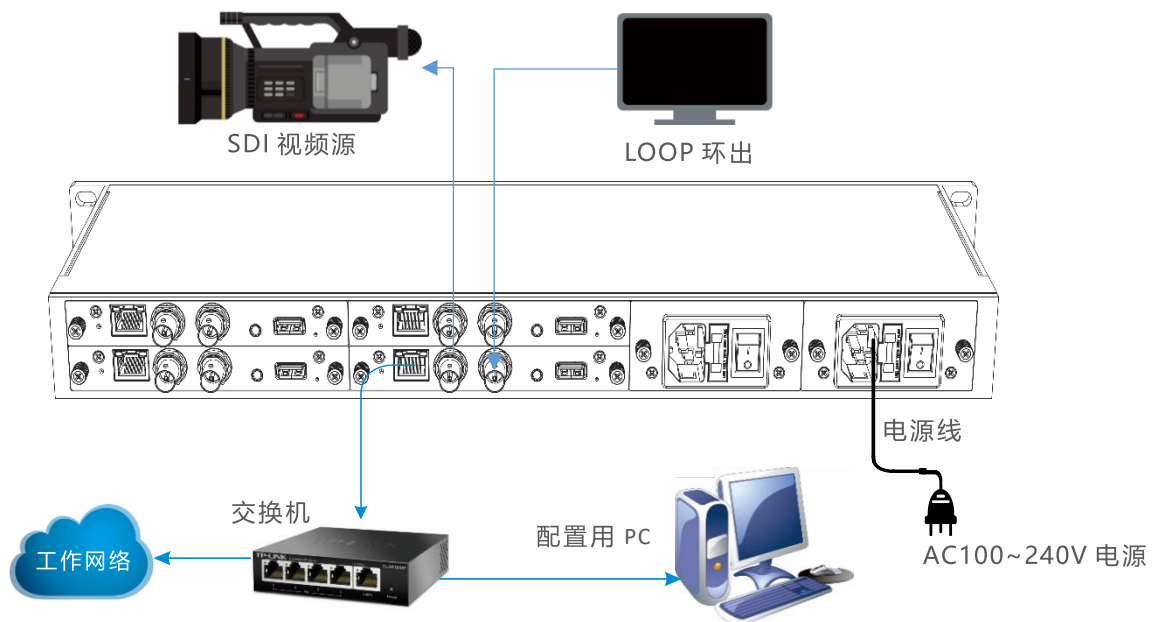


**RN-3 支持 1U 和 3U 机架式安装，获取更多安装使用帮助，请访问 Kiloview 官方网站地址**

<https://www.kiloview.com/cn/support/docs/rack-mount/3u-frame/>

## 5 应用场景

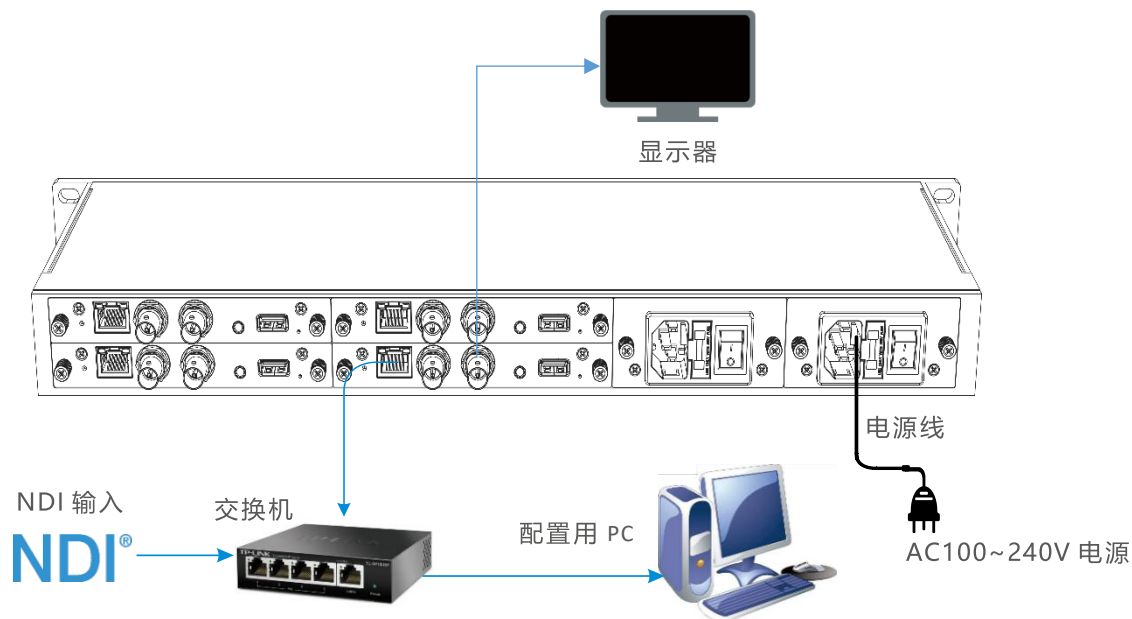
### 5.1 编码模式



#### 注意

- 机架式设备配备双电源，仅使用一个电源输入设备即可正常运行，当连接双电源时则作为冗余电源备份。
- 编码器模式下，需确保摄像机输出的 SDI 线缆连接 SDI IN 口。
- Loop 不是必须的，当需要环出时连接 SDI OUT 接口。
- 连接电源线后，通过对应的电源开关进行开启和关闭。

## 5.2 解码模式



### 注意

- 机架式设备配备双电源，仅使用一个电源输入设备即可正常运行，当连接双电源时则作为冗余电源备份。
- 同一卡板的编码模式和解码模式不可同时使用。
- 解码器模式下，需确保 SDI 线缆连接的是 SDI 输出口。

## 6 发现设备

### 6.1 使用 Kiloview Multiview 免费工具

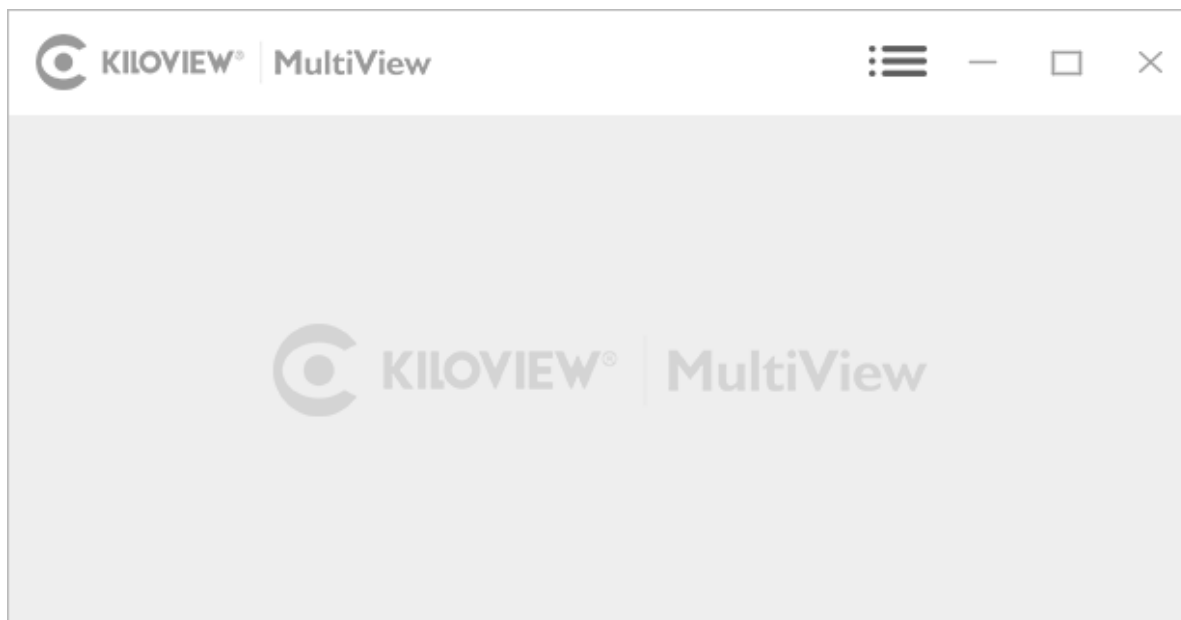


#### 下载 Kiloview Multiview 免费工具

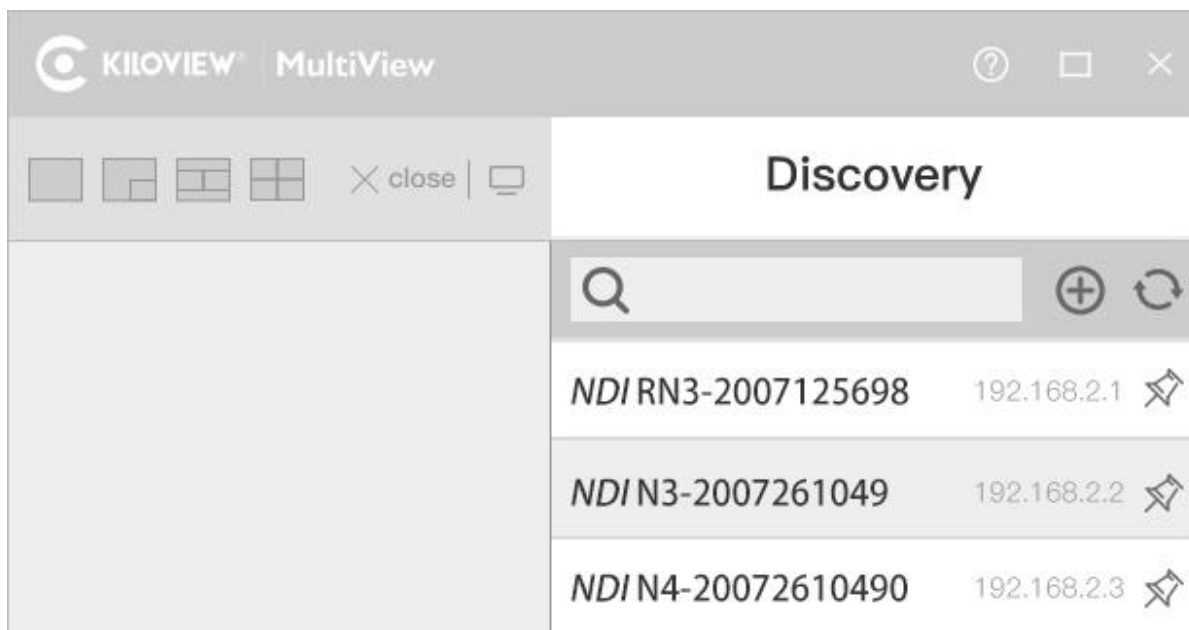
访问网址 <https://www.kiloview.com/cn/ndi/multiview>，点击[申请免费体验]按钮，获取 Multiview，根据提示一步一步安装软件即可。

**Kiloview Multiview** 是一款全世界广受好评的、免费的 NDI 视频发现、管理、多画面监看的工具软件。

## 第一步：启动 Kiloview Multiview 软件，打开设置界面



## 第二步：在设备发现列表中找到你要的设备，通过 Web 浏览器访问它的管理界面



### 说明

- RN-3 设备的命名规则：RN-3-**<设备序列号>**，其中**<设备序列号>**为贴在设备标签上的一串数字。
- **访问方法一**：将发现列表中的设备直接鼠标拖放到左边的窗格，稍等片刻，右上角将出现一个 © 图标。点击它可以直接打开 RN-3 设备的 Web 管理页面。
- **访问方法二**：打开 Web 浏览器，在地址栏输入：**http://设备 IP 地址/**（其中**设备 IP 地址**是在发现列表中显示的 RN-3 设备的 IP 地址）。

## 6.2 使用 NDI SDK Tools 中的 Studio Monitor

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### 下载 NDI SDK Tools 工具

通过 NDI 官方地址 <https://www.ndi.tv/tools/> 下载并安装 NDI SDK Tools。下载的方法/安装的过程请遵照 NDI 官方的指引。

**Studio Monitor** 是 NDI SDK Tools 中的一个工具，是 NDI 官方提供的用于发现、监看 NDI 视频的免费工具。

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在 Studio Monitor 界面上点击鼠标右键，在弹出菜单中，找到 **RN-3 设备的名称**，并点击它（用于播放 NDI 视频）。当 Studio Monitor 播放 RN-3 视频的同时，Studio Monitor 的右下角将出现一个“齿轮”图标。点击它，将弹出浏览器窗口，用于登录访问 RN-3 的 Web 管理界面。

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### 说明

- RN-3 设备的命名规则：RN-3-**<设备序列号>**，其中**<设备序列号>**为贴在设备标签上的一串数字。
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## 6.3 无法找到设备时的处理方法

如果因网络环境的原因，无法通过上述两种方法在网络中找到 RN-3 设备，请尝试通过设备缺省的固定 IP 地址 **192.168.1.168** 来访问设备。即在浏览器中打开 <http://192.168.1.168/> 访问 Web 管理页面。

## 7 登录设备管理页面

打开 RN-3 的 Web 管理界面后，缺省登录设备的用户名是：**admin**，密码是：**admin**。

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### 注意

- 为保证信息安全，建议您初次登录后、立即修改密码！
  - 首次登录设备时，或每次升级固件后再次登录，将出现《**最终用户许可协议**》的阅读窗口，请您务必仔细阅读并在接受许可协议后方可使用！
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## 8 使用设备进行工作



### 注意

RN-3 设备目前只能工作在“编码器模式”或者“解码器模式”二者之一。但您可以在二者之间任意切换。

### 8.1 编码模式

设备默认工作在“编码器模式”。在 RN-3 Web 管理界面的左边，有编码器/解码器两种模式切换的图标。当设备处于其它工作模式时，点击“编码”图标可以切换回“编码器模式”。

	<b>编码</b>	解码	网络	发现服务器	语音对讲
1920x1080p 30HZ 分辨率	60 Fps 帧率	86383Kbps 实时码率	48.0KHz/2CH 音频		
基本设置					




获取更多关于 RN-3 编码器模式的使用帮助，请访问 Kiloview 官方网站地址

<https://www.kiloview.com/cn/support/docs/rn-3/>

### 8.2 解码模式


在 RN-3 Web 管理界面的上边，有编码器/解码器两种模式切换的图标。点击“解码”图标可以切换到“解码器模式”。





RN-3 处于解码器工作模式时，将自动搜索网络中的 NDI 源，并显示于解码管理界面的下方。找到要解码显示的 NDI 源，点击其右边  的图标，即可解码输出。



### 说明

- 默认自动发现的 NDI 源处于局域网同一子网下，且 NDI 源在公共组，当 NDI 不在公共组或者不在相同的子网时，可使用扫描列表右侧的  图标，通过组和 IP 的方式进行添加。

扫描列表			
设备名称	NDI通道名称	地址	操作
N3-20072610490	Channel-1	192.168.2.250	 
N30-20072610490	Channel-1	192.168.4.177	 
N4-20072610490	Channel-1	192.168.4.198	 
N40-20072610490	Channel-1	192.168.4.162	 

可以单击 NDI 源右边的  图标，将源添加到预置列表 (Preset) 中。RN-3 提供 9 个 Preset 位置，允许您将常用的 NDI 源保存在 Preset 列表中。这样，您可以在页面快速地选择 1-9 号 Preset，切换解码输出。您也可以通过设备 USB 外接数字键盘进行 1-9 的选择，在解码预设的右侧  图标进入有详细描述键盘的连接和操作步骤。



获取更多关于 RN-3 解码器模式的使用帮助，请访问 Kiloview 官方网站地址

<https://www.kiloview.com/cn/support/docs/rn-3/>

## 9 固件升级

### 9.1 下载升级固件



Kiloview 将持续为 RN-3 设备提供更新功能、修复 Bug 的固件。访问：

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

在筛选列表中，选择“NDI”>“RN-3”，并在“程序”标签中找到最新的固件下载。

### 9.2 升级设备固件

登录 RN-3 管理后台，点击“系统设置”>“固件升级”，进入固件升级页面。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“升级”。

通常，上传固件成功后，系统将提示您重启，如需确认，请点击确认；如果自动重启，请耐心等待。

#### 固件升级

当前固件版本： 2015.4

当前软件版本： 1.86.0203

请注意：固件成功上传后，系统会自动重启完成升级！

选择文件

升级

只能上传bin文件

未选择文件



### 注意

- 升级过程中，请勿断电，否则可能导致设备无法启动。
  - 一般来说，升级的过程大约需要 3-5 分钟。如果超过 5 分钟升级仍未提示完成，请尝试刷新网页；如果仍然无法正常访问，请尝试联系技术支持。
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## 10 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，或者当忘记网络 IP 配置并且无法搜索查找到设备时，可以尝试恢复设备的出厂设置。恢复出厂设置有两种方法：

**方法一：**当设备能正常登录 Web 管理页面时，通过 Web 界面的“设置” > “系统设置” > “恢复出厂设置”。

**方法二：**当设备不能正常登录 Web 管理页面时，按住设备底部的复位按钮，持续 5 秒以上。

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### 注意：恢复出厂设置后，以下参数将会改变至默认值

- 登录用户 admin 的密码将恢复为 admin；
  - 缺省的维护用固定 IP 地址将恢复为 192.168.1.168（子网掩码 255.255.255.0）。
  - 所有视频编码/解码参数、音频参数等将恢复到出厂的默认值。
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## 11 其它

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。



RN-3 设备的官方在线文档，请访问

<https://www.kiloview.com/cn/support/docs/rn-3/>



Kiloview 官方技术支持网站，请访问

<https://www.kiloview.com/cn/support/>



长沙千视电子科技有限公司

<https://www.kiloview.com/>

湖南省长沙市雨花区汇金路 877 号嘉华智谷产业园（长沙屿）B4-106 栋/109 栋

邮箱：[support@kiloview.com](mailto:support@kiloview.com) 联系电话：18573192787

## Quick Start Guide

# RN-3 Video Codec Card

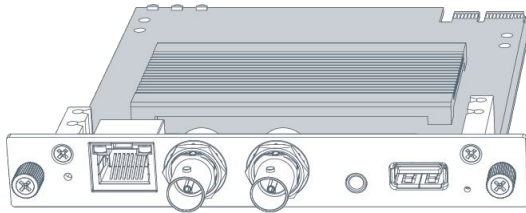
NDI FB All-round Codec Card

(2021-11 version)



Before using this product, it is recommended that you read the guide carefully. To ensure your personal safety and avoid physical or electrical damage to the device, please strictly follow the instructions of this guide to install and use it under the guidance of professionals. Incorrect electrical connections or physical installation may cause permanent damage to the device and even threaten personal safety.

# 1 Packing list



**(1) RN-3×1**

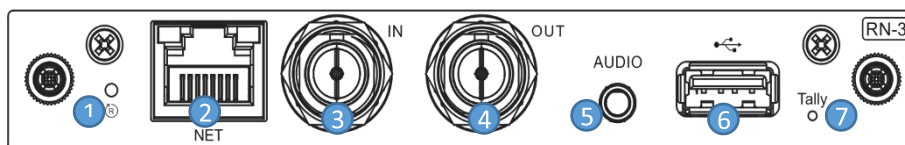


**(2) Warranty Card×1**



**(3) Quick Start Guide×1**

# 2 Device interface



(1) Reset

(2) 1GbE port with PoE

(3) SDI Input

(4) SDI Output

(5) 3.5mm Line In/Out

(6) USB Expansion

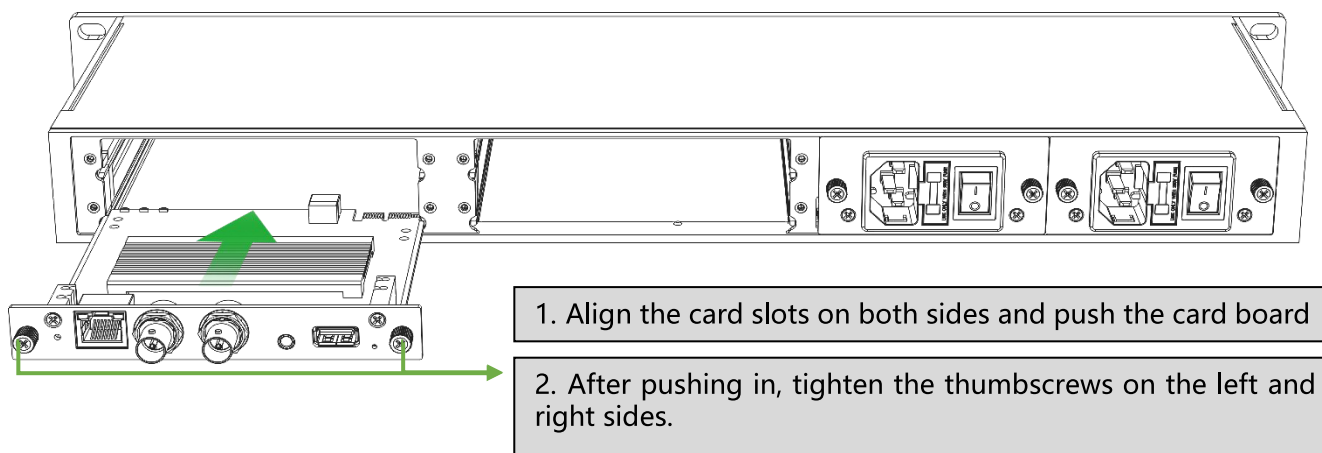
(7) Tally

### 3 Device indicators

	Video status under encoding mode	
Tally	Green light always on	PVW
	Red light always on	PGM

### 4 RN-3 card installation

Align the card board assembly with the card slots on both sides, push in parallel and tighten the two left and right thumb screws to complete the installation of the card board; when disassembling, loosen the left and right thumb screws and pull out the card board assembly in parallel.

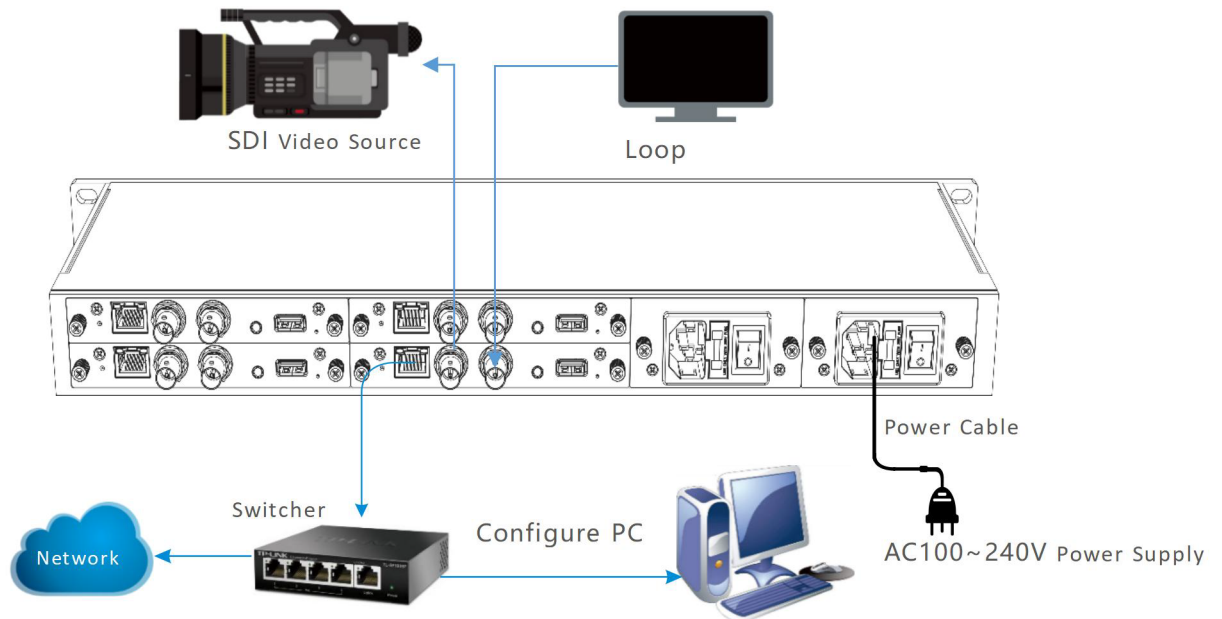


**RN-3 supports 1U and 3U rack-mount installation. For more help on installation and use, please visit Kiloview official website:**

<https://www.kiloview.com/en/support/docs/rack-mount/3u-frame/>

# 5 Applications

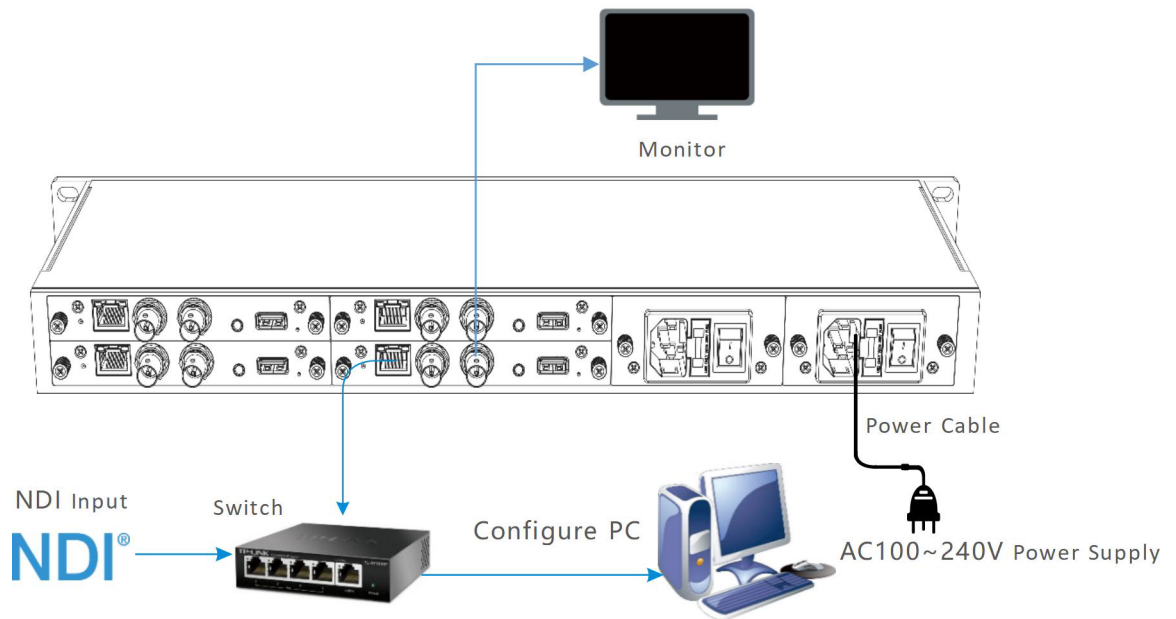
## 5.1 Encoding mode



### Note:

- Rack-mounted equipment is equipped with dual power supplies, and can operate normally with only one power input device. When dual power supplies are connected, it will be used as a redundant power supply backup
- Under encoding mode, please make sure the camera is connected to the SDI IN connector.
- Loop is not a must, connect SDI OUT when you need to loop. After connecting the power cable, turn it on and off through the corresponding power switch.

## 5.2 Decoding Mode



## 6 NDI Discovery

### 6.1 InstallKiloview Multiview NDI Player for free



### Download Kiloview Multiview for free

Visit website <https://www.kiloview.com/en/ndi/multiview>.

Kiloview Multiview is a free software for NDI video discovery, management and multi-view, which is popular and highly praised all over the world.

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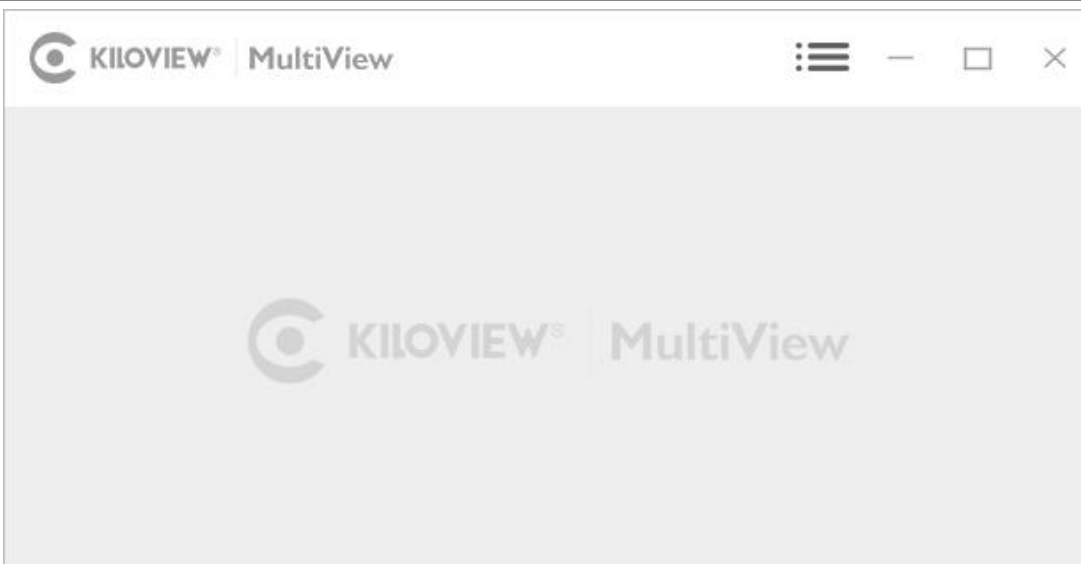
1) Start the Kiloview Multiview, open the setting interface.

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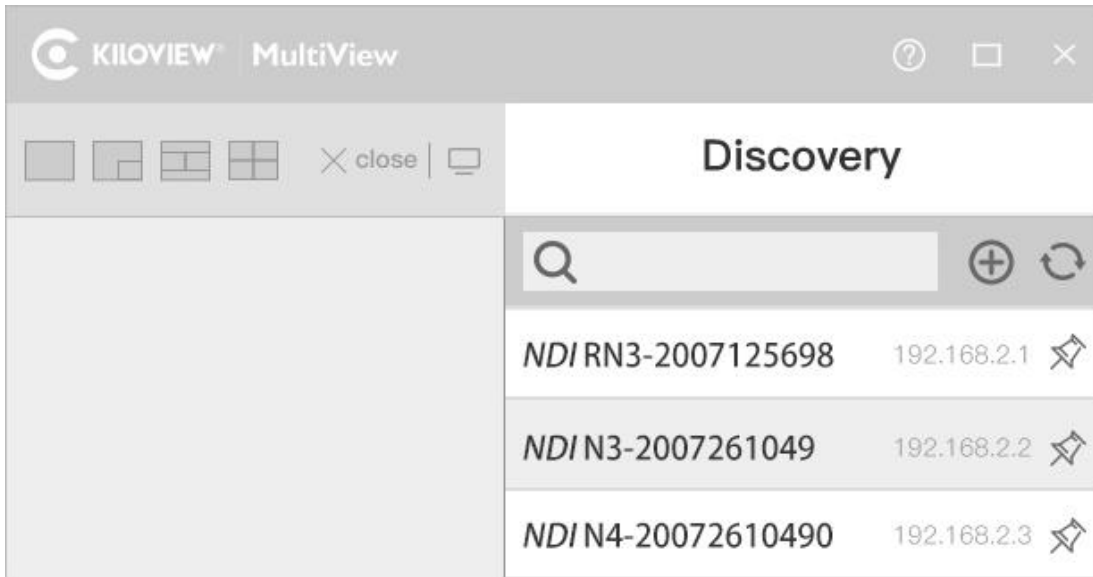


#### Note

- Rack-mounted equipment is equipped with dual power supplies, and can operate normally with only one power input device. When dual power supplies are connected, it will be used as a redundant power supply backup.
  - RN-3 cannot do encoding and decoding simultaneously at present.
  - Under decoding mode, make sure SDI cable is connected to the SDI output connector.
- 




2) Find the device in the device discovery list. Enter management interface through web browser.



### Note

RN-3 naming rules: RN-3-<serial number>. Serial number refers to the numbers pasted on the device label.

Two ways of accessing to the device management page

- Method 1: Drag the device directly in the discovery list to the left window, wait and click the icon  appeared in the upper right to access Web UI directly
- Method 2: Open Web browser, enter: <http://device IP address/> (Kindly note the device IP address for RN-3 is showed in the discovery device list.)

## 6.2 Use Studio Monitor in the NDI SDK Tools



### Download NDI SDK Tools

Download and install NDI SDK Tools through NDI official website

<https://www.ndi.tv/tools/>. Kindly follow the NDI official instructions for download

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method and installation process.

Studio Monitor is one of the NDI SDK Tools for free, which is provided officially by NDI for discovery and monitoring NDI video.

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Right click on the Studio Monitor interface, find the name of RN-3 in the pop up menu, click it for playing NDI video. At the same time, a gear icon will appear in the lower right corner, click it and then a browser window will pop up for logging in and accessing the Web UI of RN-3.



#### Note

- RN-3 naming rules: RN-3-**serial number**. Serial number refers to the numbers pasted on the device label.

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## 6.3 How to handle if the device can't be found?

If the RN-3 device can't be found in the network by the above two methods due to the network conditions, please kindly try to access the device by its default fixed IP address 192.168.1.168. That is to say, enter <http://192.168.1.168/> in the browser to visit Web UI.

## 7 Login to the device management page

Open the Web page of RN-3, default username/password is **admin/admin**.



#### Note

- To ensure your information security, we recommend you to revise your password immediately after you first login.
  - For the first login or upgrading the firmware, you need to accept the End User License Agreement (EULA). Please read carefully.
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## 8 Work with your device

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### Note





RN-3 could only work in either encoding mode or decoding mode currently, but you can switch freely between both.

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### 8.1 Encoding mode

The device works under “encoding mode” by default. There are icons for switching between encoding mode and decoding mode on the left of the RN-3 Web management page. When the device works under other mode, click icon “encoder” to switch back to encoding mode.

KILOVIEW® Encoder **Decoder** Network Discovery Server Voice Intercom

 1920x1080p 30HZ Resolution	 60 Fps Frame Rate	 86383Kbps Bitrate	 48.0KHz/2CH Audio Format
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Basic Settings



For more configuration and help for RN-3, please visit Kiloview official website:




<https://www.kiloview.com/en/support/docs/rn-3/>





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### 8.2 Decoding mode

There are icons for switching between encoding mode and decoding mode on the left of the RN-3 Web management page. Click icon “decoder” to switch back to decoding mode.

KILOVIEW® Encoder **Decoder** Network Discovery Server Voice Intercom


Current Decoding Output   

 1920x1080p 30HZ  
Resolution
  48.0KHz/2CH  
Audio
  192.168.4.198  
IP Address
  86383Kbps  
Bitrate



When working under decoding mode, NDI source can be auto discovered and displayed in the bottom of decoding Web page. Click the NDI source corresponded icon  , which can directly decode and output the video.



**Note**

- By default, the automatically discovered NDI source is in the same subnet of the LAN, and the NDI source is in the public group. When the NDI is not in the public group or in the same subnet, you can use the icon  the right side of the scan list to add it by group and IP.

Source List					
Device Name	Channel Name	Address	Operation		
N3-20072610490	Channel-1	192.168.2.250			
N30-20072610490	Channel-1	192.168.4.177			
N4-20072610490	Channel-1	192.168.4.198			
N40-20072610490	Channel-1	192.168.4.162			

Click  in the right of NDI source, you can add the resource to the preset list. There are 9 presets, you can keep nine preset decoding sources in the preset list, thus you can quickly switch and decode by clicking different NDI sources from number 1 to 9 at any time. You can also use the USB external numeric keyboard of the device to select 1-9. Enter the icon  on the right side of the decoding preset, which describes the connection and operation steps of the keyboard in detail.

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For more configuration and help of RN-3 decoding mode, please visit Kiloview official <https://www.kiloview.com/en/support/docs/rn-3/>

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## 9 Firmware upgrading

### 9.1 Download the upgrading firmware

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**Kiloview will continue to provide the firmware of updating functions and fix bugs for RN-3. Kindly visit:**

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

Select "NDI" in the filter list > "RN-3" , find the latest firmware to download.

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### 9.2 Upgrade device firmware

Login the management Web page of RN-3, click "System Settings"--"Firmware Upgrade" to check whether the latest firmware version downloaded is higher than your current version. If yes, select the downloaded firmware and click "Firmware Upgrade".

After uploaded the firmware successfully, the system indicates rebooting the device, you can either click "ok" or wait for automatically rebooting, please be patient.

## Firmware update

Current firmware version: 2015.4

Current software version: 1.80.r4c7c2e5

Note: After a firmware update, the system will automatically restart to complete the update process!

Select a file

Upgrade

You can only upload bin files



### Note

- Please not power off during the upgrade process, otherwise the device couldn't work.
- Generally speaking, it will cost 3-5 minutes to upgrade the device. If it's still not completed after 5 minutes, please try refreshing webpage. If you still can't access it normally, please try to contact technical support for assistance.

## 10 Restore factory settings

If the device cannot work normally after you modify the parameters or you forgot IP configuration and couldn't find the device, please restore factory settings.

Two methods for restoring factory settings:

- 1) If you can login to web page, then via the WEB page, click "Settings—System settings--Restore factory settings".
- 2) If you can't login to web page, press the RESET button for 5 seconds in the bottom of device.



Note:

After restoring factory setting, below parameters will be turned to default value:

- Login username and password will be "admin" .
- IP address will be restored as 192.168.1.168, subnet mask will be 255.255.255.0;

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- All encoding parameters of video and audio will be restored to default value.
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# 11 Note

To prolong the device life, please unplug the power and keep it properly if you do not use it for a long time.

For more questions, please contact us via:

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



Please scan with browser.

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