

# 快速指南

## Video Input Expander VE7 视频输入扩展器

VE7视频输入扩展器是一款多输入接口的输入接收设备，具备强大的视频接收能力，最大支持7路1920×1080@60Hz视频源输入或1路1920×1080@60Hz和3路4K×1K@60Hz视频源输入，支持输入EDID管理和画质调整，用于扩充诺瓦无缝切换器N9的输入源。

### 支持市面常见的视频输入接口

- DVI接口，支持1920×1080@60Hz等VESA标准的视频源输入，支持自定义分辨率
- HDMI1.3接口，支持1920×1080@60Hz等VESA标准的视频源输入，支持自定义分辨率
- 3G-SDI接口，支持1920×1080@60Hz输入
- DP1.1接口，支持4K×2K@30Hz输入，向下兼容，支持自定义分辨率
- HDMI1.4接口，支持4K×2K@30Hz输入，向下兼容，支持自定义分辨率
- Dual DVI接口，支持4K×2K@30Hz输入，向下兼容，支持自定义分辨率

### 支持4路光纤输出

VE7接收的输入源通过4路光纤输出到无缝切换器N9

### DVI预览输出

- 支持VE7所有输入源预览
- 支持叠加显示输入分辨率和帧频等信息
- 支持VE7的1路输入源环路输出

### EDID管理和画质调整

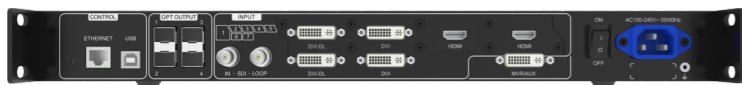
- 支持DVI、HDMI和DP接口的输入分辨率管理
- 支持VE7输入画质调整

### 支持通过V-Can或NovaLCT对设备进行升级

### 前面板



### 后面板



### 说明

- VE7出厂有两种默认配置，两种配置主要区别为默认配置的输入接口不同，且输入接口2、3、4、5可根据用户的需求更换输入接口。
- 接口2和接口3，其中一接口作为4K输入接口时，另一接口为空或不可用。
- 接口4和接口5，其中一接口作为4K输入接口时，另一接口为空或不可用。
- 接口6设置为双链路时，接口7不可用。

### 输出接口说明

- **OPT OUTPUT**  
4路10G光纤接口，通过4路光纤接口将VE7与N9相连，将VE7接收的信号传输到N9，并接收N9的控制信号。
- **MVR / AUX**
  - + 作为预览接口时，预览VE7所有输入源。
  - + 作为AUX时，通过N9配置，将VE7的1路输入源环出。

### RUN：设备连接状态灯

- 绿灯快闪，每秒闪烁一次，表示VE7与N9连接正常。
- 绿灯慢闪，每5秒闪烁一次，表示VE7与N9连接异常。

### PER：设备电源指示灯

- 红灯长亮，表示设备已正常上电。
- 红灯不亮，表示设备未上电。

### 输入接口说明

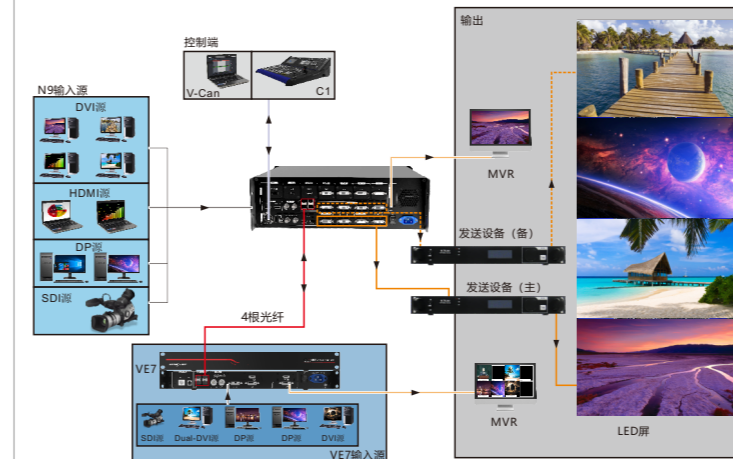
- **DVI / HDMI 1.3**  
支持1920×1080@60Hz等符合VESA标准的分辨率，向下兼容并支持自定义分辨率
- **Dual-DVI / HDMI 1.4 / DP1.1**  
支持3840×2160@30Hz源输入，向下兼容并支持自定义分辨率。支持HDCP 1.3
- **3G-SDI**  
支持1920×1080@60Hz源输入，支持去隔行处理，兼容SD-SDI、HD-SDI和3G-SDI标准。带3G-SDI环路输出。

### 控制接口及电源说明

- **USB / ETHERNET**  
连接NovaLCT，通过NovaLCT进行设备升级。
- **电源接口**  
电源接入要求：AC100-240V~，50/60Hz

# 快速指南

## 应用场景



### VE7与输入源连接

将输入源通过相应的数据线连接到VE7的输入接口中。

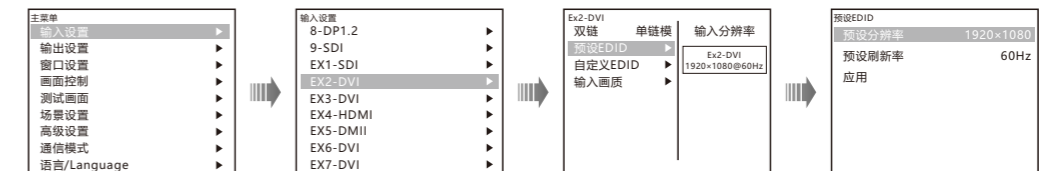
### VE7与N9连接

VE7与N9通过4个光纤口连接。

## 输入设置

VE7支持输入分辨率和输入画质设置。VE7的输入源显示在N9的输入设置中，其中以“Ex”开头的输入源为VE7的输入源。用户可用过N9来设置VE7输入源的分辨率。

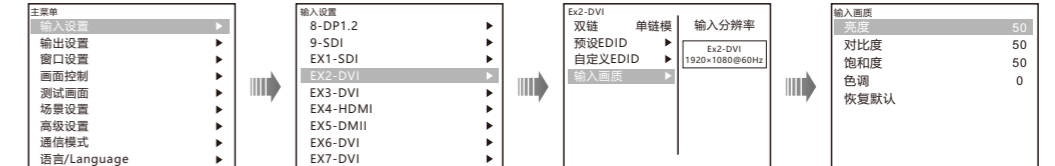
### 预设分辨率



### 自定义分辨率

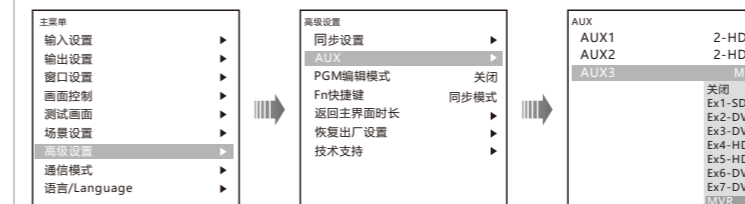


### 输入画质



## MVR/AUX设置

VE7的MVR/AUX接口支持设置为MVR预览模式或将VE7的一路输入源设置为环出。



在N9液晶菜单的“高级设置 > AUX”界面，AUX3为VE7的MVR/AUX接口。

- 当AUX3设置为“MVR”时，VE7的MVR/AUX接口用作MVR输出。
- 当设置为其他输入源时，VE7的MVR/AUX接口用作所选输入源环路输出。

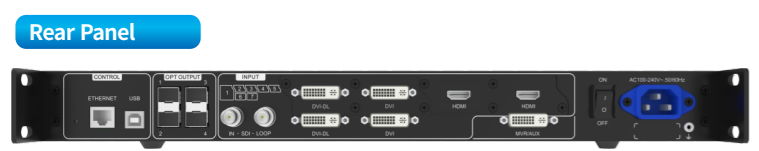
# Quick Start Guide VE7-QSG

# Video Input Expander VE7

The VE7 video input expander is an input signal receiving device with a variety of input connectors. It features powerful video input receiving capabilities, and supports a maximum of 7 video inputs up to 1920x1080@60Hz, or 1 video input up to 1920x1080@60Hz and 3 video inputs up to 4Kx1K@60Hz. It also supports input EDID management and input color adjustment. The VE7 is mainly used for expanding the input sources for the N9 seamless switcher.

- Industry-standard video input connectors**
  - DVI: 1920x1080@60Hz and other VESA standard video source inputs, custom resolutions
  - HDMI 1.3: 1920x1080@60Hz and other VESA standard video source inputs, custom resolutions
  - 3G-SDI: 1920x1080@60Hz
  - DP 1.1: 4Kx2K@30Hz and downward compatibility, custom resolutions
  - HDMI 1.4: 4Kx2K@30Hz and downward compatibility, custom resolutions
  - Dual DVI: 4Kx2K@30Hz and downward compatibility, custom resolutions
- 4 optical fiber outputs**

The VE7 can output the received video inputs to the N9 seamless switcher via 4 optical fiber output connectors.
- DVI MVR output**
  - Monitoring all input sources
  - Displaying input resolution and frame rate
  - Loop output of one input source
- EDID management and input color adjustment**
  - Input resolution management of DVI, HDMI and DP connectors
  - Input color adjustment
- Device update via V-Can or NovaLCT**



- RUN: Device connection status**
  - Flashes fast (flashes every second): The connection between the VE7 and N9 is normal.
  - Flashes slowly (flashes every 5 seconds): The connection between the VE7 and N9 is abnormal.
- PER: Device power status**
  - On: The device is powered on
  - Off: The device is not powered on

- Note**
  - The VE7 has two versions which differ in input connectors 2, 3, 4 and 5. Those connectors can be replaced as required.
  - When either of the input connector 2 or 3 is used as a 4K input connector, the other one is blank or unavailable
  - When either of the input connector 4 or 5 is used as a 4K input connector, the other one is blank or unavailable.
  - When the input connector is set to dual link mode, the input connector 7 is unavailable.

- Output**
  - OPT OUTPUT**

Four 10G optical fiber connectors which enable the signal transmission between the VE7 and N9.
  - MVR / AUX**
    - Monitoring all input sources of the VE7
    - Loop output of one input source via N9 configuration

- Input**
  - DVI / HDMI 1.3**

1920x1080@60Hz and other VESA standard resolutions, downward compatibility and custom resolutions
  - Dual-DVI / HDMI 1.4 / DP1.1**

3840x2160@30Hz input resolution, downward compatibility and custom resolutions. HDCP 1.3 compliant
  - 3G-SDI**

1920x1080@60Hz input resolution and deinterlacing

Standard SD-SDI, HD-SDI and 3G-SDI inputs supported and 3G-SDI loop output

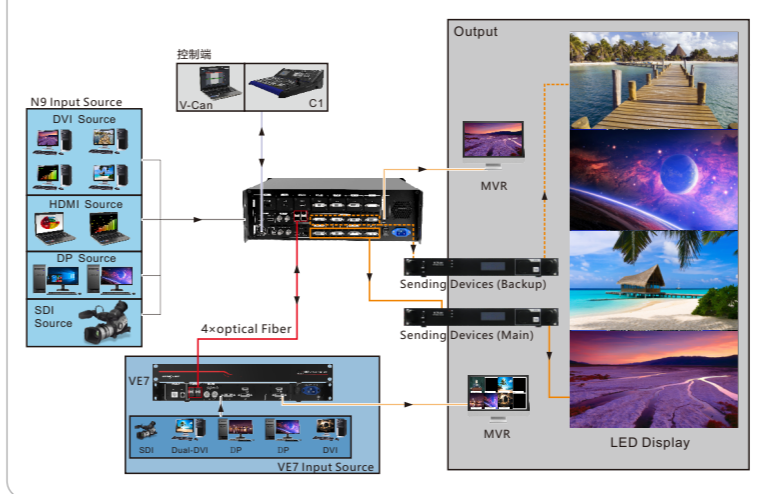
- Control & Power**
  - USB / ETHERNET**

For device update via NovaLCT
  - Power connector**

Requirements: AC100-240V~, 50/60Hz

# Quick Start Guide VE7-QSG

## Applications



- Connections between VE7 and input sources**

Connect the input sources to input connectors of the VE7 by using cables.
- Connections between VE7 and N9**

Connect the VE7 and N9 via 4 optical fiber ports.

## Input Settings

The VE7 supports input resolution and color settings. The VE7 input sources are displayed in the N9 input settings menu with an Ex in front of each input source. You can set the VE7 input source resolution on the N9.

<b>Standard EDID</b>	Main > Input Settings > Output Settings > Layer Settings > Display Control > Test Pattern > Preset Settings > Advanced Settings > Communication Settings > Language >	Input Settings > 8-DP1.2 > 9-SDI > EX1-SDI > EX2-DVI > EX3-DVI > EX4-HDMI > EX5-DMII > EX6-DVI > EX7-DVI >	Ex2-DVI > Dual Link > SL > Input Resolution > Standard EDID > Custom EDID > Input Color >	Standard EDID > Resolution 1920x1080 > Frame Rate 60Hz > Apply
<b>Custom EDID</b>	Main > Input Settings > Output Settings > Layer Settings > Display Control > Test Pattern > Preset Settings > Advanced Settings > Communication Settings > Language >	Input Settings > 8-DP1.2 > 9-SDI > EX1-SDI > EX2-DVI > EX3-DVI > EX4-HDMI > EX5-DMII > EX6-DVI > EX7-DVI >	Ex2-DVI > Dual Link > SL > Input Resolution > Standard EDID > Custom EDID > Input Color >	Custom EDID > Width 1920 > Height 1080 > Refresh Rate 60Hz > Apply
<b>Input Color</b>	Main > Input Settings > Output Settings > Layer Settings > Display Control > Test Pattern > Preset Settings > Advanced Settings > Communication Settings > Language >	Input Settings > 8-DP1.2 > 9-SDI > EX1-SDI > EX2-DVI > EX3-DVI > EX4-HDMI > EX5-DMII > EX6-DVI > EX7-DVI >	Ex2-DVI > Dual Link > SL > Input Resolution > Standard EDID > Custom EDID > Input Color >	Input Color > Brightness 50 > Contrast 50 > Saturation 50 > Hue 0 > Reset

## MVR/AUX Settings

The VE7 allows you to set the MVR function or set the loop output of one input source.

Main > Input Settings > Output Settings > Layer Settings > Display Control > Test Pattern > Preset Settings > Advanced Settings > Communication Settings > Language >	Advanced Settings > Synchronization > AUX > PGM Edit > Fn > Go Homepage > Factory Reset > Technical Support >	AUX > AUX1 2-HDMI > AUX2 2-HDMI > AUX3 MVR > OFF > Ex1-SDI > Ex2-DVI > Ex3-DVI > Ex4-HDMI > Ex5-HDMI > Ex6-DVI > Ex7-DVI > MVR
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- Choose **Advanced Settings > AUX** on the N9 and the AUX 3 is the MVR/AUX connector of the VE7.
  - When AUX3 is set to MVR, the function of this connector is to monitor input sources.
  - When AUX3 is set to other input sources, the function of this connector is for loop output of the selected input source.

