

Quick Start Guide

NDI® Converter

12G-SDI/NDI Bi-directional converter

+2020
REV. 1

NDI® is a registered trademark of NewTek, Inc.

- Before you use this product, we recommend that you read the instruction manual of this product carefully. To ensure your personal safety and to protect your equipment from physical or electrical damage, please follow the instructions in this manual or use the product under the guidance of a professional. Improper electrical connections or physical installations can cause permanent damage to the equipment and even threaten personal safety.



This guide is intended to guide you to use this NDI® Converter device.

01 Packing list

Name	Unit	Quantity
NDI® Converter	PCS	1
TYPE-C power cable	PCS	1
TYPE-C to TYPE-A cable	PCS	1
Certificate/ Warranty card	PCS	1
Power adapter	PCS	1
Hot shoe	PCS	1
Quick start guide	PCS	1



Note:

The items in the packing list may be different due to product upgrade.

02 Device Interface Description



- 1 TYPE-C expansion port 2 Tally 3 Working indicator



- 4 TYPE-C power port 5 1000M Ethernet (PoE) 6 Audio port
7 SDI input 8 SDI output 9 Small Tally light

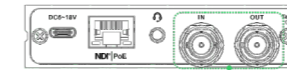


03 Device Installation and Connection

1) Installation

Connect video signal

Connect the SDI signal from a source (such as a camera) to the SDI input port of the device through a cable. The SDI output is connected to the display device via a SDI cable.



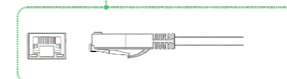
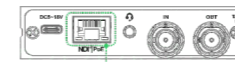
Note:

The output interface can be loop for encoding or output for decoding, but it cannot be used at the same time.



Connect network

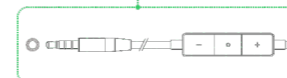
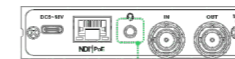
Connect the network cable to the Ethernet port of the device. The other end of the network cable is connected to the switch. You can also connect directly to the network port of the computer.



Connect to the switch or directly to the network port of the computer.

Connect audio

Using a 3.5mm interface headset with a microphone to connect to the device for voice intercom.



Connect power supply

After connected with the power adapter(DC 5v),the power light will be on and the device starts working.



It is packed with one USB charging cable, which can power the device by a DC5-18V power supply.



Note:

When network switch provides PoE, there is no need to connect to the power supply.

2) Check LED status light

After connected with the power adapter, the device starts to boot. Power light is always on till the device working. It lasts about 30-40s.

LED indicator:

Icon	Color	Status	Descriptions
POWER	White	Always on	Power connected
		Flashing	Power failure
		Off	No power supplied or power failure
LINK	White	Quick flashing	Network connected
		Slow flashing	Network connection abnormal or when restore device to factory settings (RUN light will be flashing as well)
		Off	Network abnormal or disconnected
RUN	White	Flashing	Device works properly
		Off	The device is abnormal or not started

Note:

If the indicator light is abnormal, please check the corresponding power supply / network / equipment hardware, etc.

3) Log in to the device management interface

Device default IP address

The default IP of the device is **192.168.1.168** and the subnet mask is **255.255.255.0**.

This IP address is the Failsafe address.

Normally you don't need to modify this IP address.

Login the WEB Page

First set your PC's IP address to 192.168.1.0/24 subnet, and then log in using the default IP address.

You can access <http://192.168.1.168>, to login the web page.

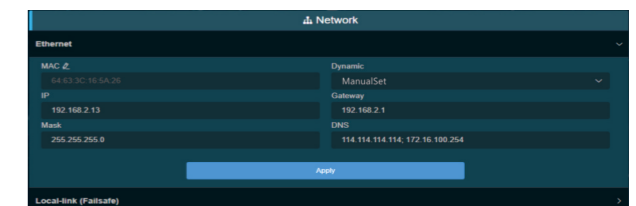
Login username: **admin**; Password: **admin**

Note: For the first login or after restoring the factory settings, you need to agree to the popping up "End User License Agreement". Otherwise, the device cannot work normally.

IP address configuration

After login, you can configure the IP address according to the network.

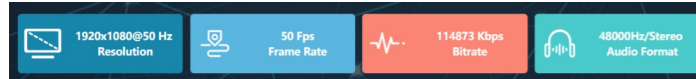
It can be manually set or DHCP dynamic (Default set is DHCP dynamic).



4) NDI Encoding

It is a Full NDI encoding transmission device, up to 12G-SDI input. When video resolution is 4Kp60, the bitrate can be up to 250Mbps. Therefore, the device and the receiving port should be connected to gigabit network.

Status Column



Here it will display the resolution, frame rate, bitrate and audio format parameters of the video source.

Coding quality settings

The encoding resolution is the resolution that output from the video source, which cannot be configured for scaled encoding.

Encoding bitrate can be appropriately lowered or increased by adjusting encoding quality. The default encoding quality is 100%.



Encoder channel settings

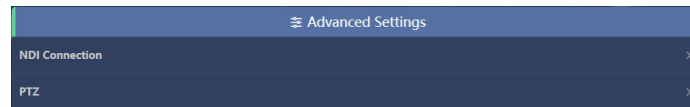
When there are multi NDI sources in the same network, channel names need to be modified to identify different devices because the default channel names are the same.

Group	Device Name	NDI Channel Name
Blank for default group	NDI-1916450228	Channel-1

Note:

There is no need to save the parameters after modified, since the modification will take effect immediately if click other locations of the page.

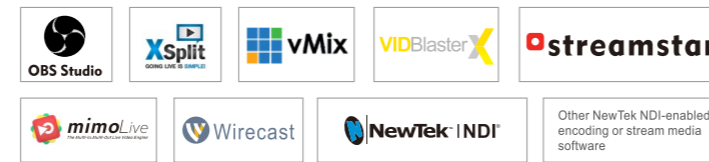
Advanced settings



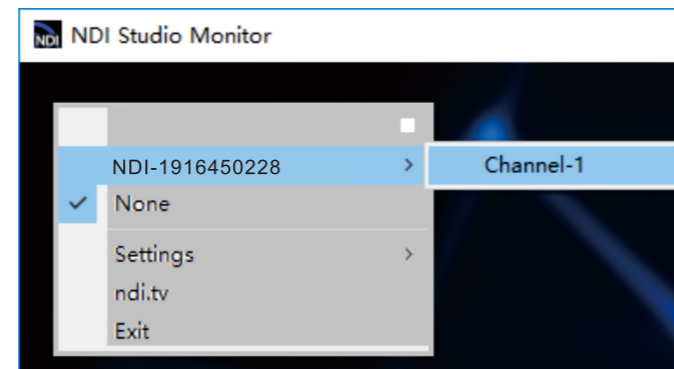
In advanced settings, you can set the connection mode of NDI stream, which can be unicast or multicast. Here you can also set the PTZ control function.

5) NDI Connection

Compatible Softwares:



It is compatible with NewTek NDI®. NDI stream service is enabled by default. When the device is in the same subnet with NewTek Studio Monitor software or others like OBS, vMix, etc. that supports NDI protocol, the device can be automatically discovered. Select the corresponding device and channel, then you can play the NDI video stream.



6) NDI Decoding

Discover NDI sources in the network

NDI sources can be detected automatically and will be listed at the same subnet, and you can renew the NDI sources by click

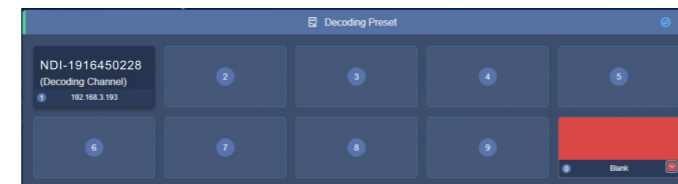
Add target NDI source

Click to add the source to the decoding presupposition.

Device Name	Channel Name	Address	Operation
KVJ5-002	Studio Monitor 1	192.168.3.100	
NDI-1916450228	Decoding Channel	192.168.3.193	

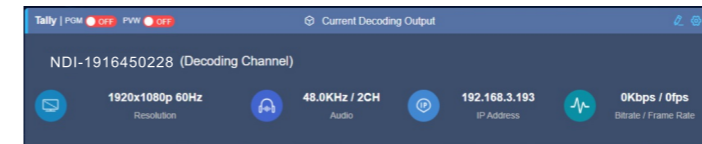
Switch output NDI source

You can add up to 9 NDI sources in the decoding preset and click the corresponding source to decode. Decoding output can be quickly switched by clicking different NDI sources.



Decoding Parameter Settings

Some information such as resolution, audio parameters, IP address and bit rate of the decoding source will be displayed in "Current Decoding" zone. Please enter into Web page and set the decoding resolution & framerate by clicking



Note:

This NDI Converter cannot conduct encoding and decoding at the same time, encoding will stop if you enable the decoding function.

04 Restore Factory Settings

Restore Factory Settings

If the parameters are changed that lead the converter couldn't work (The typical situation is that the network address was changed, so it couldn't visit the device by network), users could restore factory setting to default value.

Two methods for restoring factory settings:

- Click "System Settings>Restore factory settings" on the web console.
- Press "Reset" button at the bottom of the device

There is a reset button at the bottom of the device, hold the button for more than 5 seconds, the device will restore to factory settings. Restoring factory settings will lead to the restarting of the device. The restarting process takes about 30s.

Note:

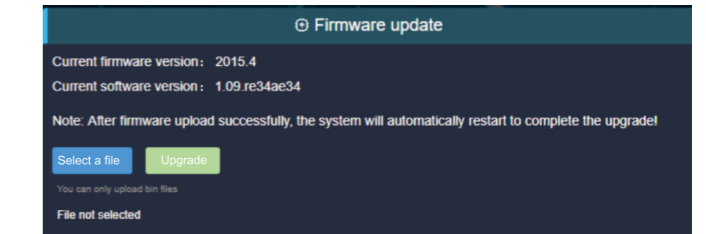
These parameters will be restored to default value after restoring factory setting:

- 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;
- All encoding and decoding parameters of video and audio will be restored to default value;
- Media transmission parameters will be restored as default value.

05 Firmware Upgrading

Firmware upgrading

This device supports online firmware upgrading to upgrade software. Click "System Settings> Firmware Upgrade" on Web management interface for upgrading. Click "Select a file" to upload the firmware file to upgrade the device.



Note:

After uploading firmware file successfully, the device will automatically restart, this process will take about 30s-60s (the time will be different according to upgrade content), and please be patient.

After the upgrade is complete, please click to check whether the latest version information is as expected to confirm if the upgrade is succeeded.

06 Quick Reset and Reboot

Quick Reset and Reboot

"Quick Reset" function is to reset encoding and decoding service, normally it's used for changing parameters to effect immediately.

"Quick Reset" process lasts around 3s.

"Reboot" function is used for encoder reboot. Device rebooting lasts around 20s.

Note:

Select "Quick Reset", current encoding and decoding service will be suspended for a while;

Select "Reboot", the encoder will 'warm' reboot.

Under some circumstances, reboot might be realized with the help of cold restart, that is by turning on/off the power.