

Guide and User Manual

U5

Ultra HD Encoder

With Simultaneous RF and IP Out



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Table of Contents

Safety Precautions.....	4
Package Contents.....	4
Unpacking and Inspection.....	4
Installation.....	5
Introduction to U5	5
Features.....	5
Specifications.....	6
Hardware Installation	8
Device Setup and Programming	8
Connecting to the GUI Interface	8
Factory Default IP Address: 192.168.1.9	8
GUI Login.....	8
Default Login Info	8
Indicators and Button Control.....	9
Front LED Indicators	9
Reset Button Control (IP Reset and All Configuration Reset).....	9
Overview Page.....	10
Encoder Setup Page	11
Video Setting	11
Audio Setting	11
Mux Setting.....	12
PSI (Program Specific Information) Setting	12
Output Setup – RF Out Page	13
DVB-T RF Out Setting	13
Output Setup – IP Out Page	14
Multicast Streaming	14
Unicast Streaming.....	14
RTSP Streaming	15
SRT Streaming.....	15
Listener Mode	15
Caller Mode	15
Rendezvous Mode.....	16
Streaming Capability: 5 Streams Simultaneously (Video at 30 Mbps).....	17
Output Setup – Recording Page	17
Network Setup Page.....	18
Forgot IP Address	18
System Setup Page	19
Description.....	19

Time / NTP Server Setup.....	19
Administration Page	20
Reboot.....	20
Reset to Default	20
Backup	20
Restore	21
Firmware Update	21
Change Password.....	22
Reference: Private Address Ranges, IPv4	22
4K Video Receiving and Decoding	23

Safety Precautions



The presence of this symbol is to alert the installer and user to the presence of uninsulated dangerous voltages within the product's enclosure that may be of sufficient magnitude to produce a risk of electric shock.



TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. DO NOT OPEN THE UNIT. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

- DO NOT apply power to the unit until all connections have been made, all components have been installed and all wiring has been properly terminated.
- DO NOT terminate, change or uninstall any wiring without first disconnecting the unit's power adapter from the device.
- This device is supplied with the appropriately rated power supply. The use of any other power supply could cause damage and invalidate the manufacturer's warranty.
- DO NOT connect the adapter to the device if the adapter is damaged.
- DO NOT cut the adapter wire.
- DO NOT plug the adapter into an AC outlet until all cables and connections to the device have been properly connected.
- The device should be installed in an environment consistent with its operating temperature specifications. Placement next to heating devices and dusts is to be avoided as doing so may cause damage. The device should not be placed in areas of high humidity.
- DO NOT cover any of the device's ventilation openings.
- If the device has been in a cold environment allow it to warm to room temperature for at least 2 hours before connecting to an AC outlet.

Package Contents

This package contains:

- One U5
- One 12V 1.5A Power Adapter
- One Rack Mount Ear Kit (2 pcs)
- One Guide and User Manual

Unpacking and Inspection

Each unit is shipped factory tested. Ensure all items are removed from the container prior to discarding any packing material.

Thoroughly inspect the unit for shipping damage with particular attention to connectors and controls. If there is any sign of damage to the unit or damaged/loose connectors, contact your distributor immediately. Do not put the equipment into service if there is any indication of defect or damage.

Installation

System Installer must adhere to Article 820-40 of the NEC that provides guidelines for proper grounding and specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

Introduction to U5

ZyCast's Single Channel U5 HEVC Encoder, a cutting-edge broadcasting solution that combines versatility, efficiency, and ultra high-definition video encoding. Designed to meet the demands of modern broadcasters and content creators, this encoder is engineered to deliver exceptional performance and flexibility.

With the ZyCast Single Channel U5 HEVC Encoder, you can effortlessly encode video content into the RF standard of your choice (DVB-C, DVB-T, J.83B, ISDB-Tb, DVB-T2*). Whether you require RF output or prefer the convenience of an IP video stream, this encoder has you covered.

Equipped with state-of-the-art HEVC (High-Efficiency Video Coding) technology, the ZyCast U5 encoder maximizes video compression efficiency, reducing bandwidth requirements without compromising on visual quality. This advanced encoding capability allows for the delivery of stunning, high-resolution content up to 4096 x 2160 pixels, ensuring an immersive viewing experience for your audience.

Thanks to its simultaneous RF and IP output capabilities, this encoder offers exceptional flexibility in content distribution. Whether you need to broadcast content over traditional RF networks or deliver content over IP-based platforms (UDP/RTP Multicast/Unicast, RTSP, SRT.)

In summary, the ZyCast Single Channel U5 HEVC Encoder combines the power of HEVC encoding, multiple standard RF output, and simultaneous IP streaming in resolutions up to 4096 x 2160 pixels. This encoder is the ideal solution for broadcasters and content creators seeking to deliver exceptional video content across various platforms. Upgrade your broadcasting capabilities with the ZyCast U5 encoder and unlock a world of possibilities.

Features

- ✓ Video Resolution Up To 4096 x 2160p60
- ✓ HDMI 2.0 & HDCP 2.2 Compliant
- ✓ Video Codec: HEVC (H.265) and AVC (H.264)
- ✓ Audio Codec: MP2, AAC, AC3
- ✓ HEVC (H.265) Profile: Main 4:2:0 8Bit
- ✓ RF Out Standards: DVB-T, ATSC, QAM-B (J.83), ISDB-Tb, DVB-C, DVB-T2*
- ✓ Supports Multicast/Unicast, RTSP, and SRT Streaming Protocol
- ✓ Friendly and Powerful Web User Interface Saves Your Setup Time (English and Spanish)
- ✓ Allows for Stream Recoding Using External USB Drive

*DVB-T2 Requires Additional Firmware License

Specifications

Video / Audio Input		Recording (Simultaneous Streaming & Recording)	
HDMI 2.0	Single Connector	Recording	USB 2.0 (MPEG-TS) FTP Upload (To Be Developed)
Loopthrough	To Be Developed		
HDCP Compliance	2.2	IP Output	
Encoding Profile		Connector	RJ-45 x 1
Input Resolution	4096 x 2160p / 3840 x 2160p 1920 x 1080p / 1280 x 720p 720 x 576p / 720 x 480p	Standard	1000Base-T Ethernet, Full Duplex
		Streaming Protocol	HLS (TS) / RTSP / SRT UDP Unicast, Multicast RTP Unicast, Multicast
Encode Resolution	Same as Input	General	
HEVC(H.265) Tiers and Levels	4096 x 2160p, Main Profile / Level 5.1 3840 x 2160p, Main Profile / Level 5.1 1920 x 1080p, Main Profile / Level 5.1 1280 x 720p, Main Profile / Level 5.1 720 x 576p, Main Profile / Level 5.1 720 x 480p, Main Profile / Level 5.1	Local Monitoring	4 Indicator LEDs
		GUI Supported	Firefox, Chrome and Edge
		Password Protected	GUI: Changeable
		Power Supply	12VDC 1.5Amp.
		Consumption	0.75A ; 9W Typical
		Dimension	Housing: 236mm x 145mm x 35mm
HEVC(H.265) Profile	Main ; 4:2:0 ; 8bit	Language	English ; Spanish
H.264 Encoding	4096 x 2160p High Profile / Level 4 3840 x 2160p High Profile / Level 4 1920 x 1080p High Profile / Level 4 1280 x 720p High Profile / Level 4 720 x 576p High Profile / Level 4 720 x 480p High Profile / Level 4		
Encode Bitrate	1Mbps to 30Mbps		
Rate Control	VBR, CBR		
Audio Codecs	MPEG-1 Layer II / MPEG-4 AAC-LC in ADTS / AC-3		
Sampling Rate	44.1 and 48KHz		

RF Output		
Connector	1 x “F” Female	
Output Level	35 dBmV	
Output Impedance	75 ohm	
Level Adjustment	0 to 20 dB	
Carrier Suppression	55 dB	
Output Return Loss	10 dB Typical	
MER	40 dB Typical	
Modulation Standard	(I) J.83 Annex B	(II) ATSC-8VSB
RF Mode	Normal / Inverted	
Channel Type	STD / HRC / IRC	ATSC-8VSB
Frequency Range (Standard Mode)	57 MHz to 861 MHz (Ch 2 to Ch 135)	57 MHz to 803 MHz (Ch 2 to Ch 69)
Interleaver	I=128, J=1	-
Constellation and Max Output Bitrate	64-QAM (26.970Mbps) 256-QAM (38.810Mbps)	8VSB (19.393Mbps)
VCN	Auto (Major & Minor) / Manual (Major & Minor) / Manual (One Part)	Auto (Major & Minor) Manual (Major & Minor)
Modulation Standard	(III) DVB-T	(IV) ISDB-Tb
RF Mode	Normal / Inverted	
Frequency Range (Under 6MHz)	57 MHz to 803 MHz (Ch 2 to Ch 69)	177.143 MHz to 803.143 MHz (Ch 7 to Ch 69)
Constellation and Max Output Bitrate	16-QAM (15.834Mbps) 64-QAM (23.751Mbps)	16-QAM (15.490Mbps) 64-QAM (23.235Mbps)
FEC	1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8
LCN Mode (Default)	Colombia	Brazil
OFDM Mode	2k, 8k	2k, 4k, 8k
Guard Interval	1/32, 1/16, 1/8, 1/4	
Modulation Standard	(V) DVB-C	(VI) DVB-T2*
RF Mode	Normal / Inverted	
Frequency Range (Under 8MHz)	50.500 MHz to 858.000 MHz (Ch E2 to Ch E69)	50.500 MHz to 858.000 MHz (Ch E2 to Ch E69)
Constellation and Max Output Bitrate	16-QAM (25.656Mbps) 32-QAM (32.071Mbps) 64-QAM (38.485Mbps) 128-QAM (44.899Mbps) 256-QAM (51.313Mbps)	PLP Constellation QPSK / 16-QAM / 64-QAM / 256-QAM (Up to 46.590Mbps)
Guard Interval	-	1/32, 1/16, 1/8, 1/4, 1/128, 19/128, 19/256
FFT Mode	-	1k, 2k, 4k, 8k, 16k

*DVB-T2 Requires Additional Firmware License

Specifications Subject to Change Without Notice

Hardware Installation

1. It Is Highly Recommended that Quality Cables and Connectors Be Used for All Video Source Connections
2. Connect Video Source Input
Note: HDMI 2.0 cable is required for 4K encoding. Cable not provided with this device.
3. Connect Ethernet Cable and/or Coaxial Cable as Desired
4. Plug Power Adapter into a Properly Rated Surge Protector
5. Apply Power to the Unit

Device Setup and Programming

Connecting to the GUI Interface

1. Connect an Ethernet Cable Directly to Network Port on the Rear of the Device or Connect the Ethernet Cable to an Ethernet Switch. Connect an Ethernet Cable to Your PC/Laptop.
2. Modify Your PC/Laptop IP Address to 192.168.1.100
3. Enter Default IP for U5 into Your Web Browser (Suggested Browser: Firefox, Chrome, Edge)

Factory Default IP Address: 192.168.1.9

GUI Login

After connecting the device to the GUI interface (please see descriptions above)

1. To Login: Enter User Name/Password

Default Login Info

User Name	Password
admin	Admin123

Note: To modify the system password, go to the [Administration] page of GUI.

Indicators and Button Control

Front LED Indicators

1. Power LED	
Solid Green	Unit On
Unlit	Unit Off

2. Status LED		
<u>Encoder Status</u>	Solid	OK
	Flashing	No Input
	Unlit	Error
<u>IP Output Status</u>	Solid	Enabled
	Flashing	Programming
	Unlit	Disabled
<u>RF Output Status</u>	Solid	Enabled
	Flashing	Error
	Unlit	Disabled
<u>USB Status</u> <u>(For Recording)</u>	Solid	USB Plugged In
	Flashing	Recording
	Unlit	No USB Attached

Reset Button Control (IP Reset and All Configuration Reset)

1. To Reset **IP Address** to Default Value

Press and Hold reset button for 3 seconds on the front housing while the unit is powered on.



Release the button until power LED starts flashing in [BLUE](#).

Unit IP address will Revert Back to Default IP: 192.168.1.9

Unit Login Data will Revert Back to Factory Default

Name: admin / Password: Admin123

Note: No Other Changes Will Be Made to the Configurations.

2. To Reset **All Settings** to Default Value

Press and Hold reset button for 10 seconds on the front housing while the unit is powered on.

Release the button until power LED starts flashing in [PINK](#).

Note: If user press the reset button for less than 3 seconds and then release it, no settings will be changed in the encoders, and power LED will remain the same status while reset button is pressed.

Overview Page

[Overview] page provides an overall system status of the U5. Users can navigate this page for quick information including encoder status, RF out, SRT streaming status (if enabled)...etc.

ZyCast4K

ZyCast

Ultra HD Series

Overview

Encoder Setup

Output Setup

Network Setup

System Setup

Administration

Device Name	Model Name	Serial Number	MAC Address	Firmware Version	Net Version
U334406	U5	2323 334406	F8:0D:EA:D5:1A:46	1.1.6	2.4.7
Location		Description			

Encoder

RF Out

SRT

Status

Encoder Status

Active

Video

Codec

H.265

Format

1920 x 1080 p60

Bit Rate

16.0 Mbps

Audio

Codec

MP2

Bit Rate

192 kbps

HDMI

HDCP Active

No

Input resolution

1920 x 1080 60

Note: To view GUI in Spanish, use the dropdown menu to select Spanish at the bottom of the GUI.

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English

English

Español

Encoder Setup Page

Use the [Encoder Setup] page to adjust the encoder parameters as required in the system. There are 4 Tabs: Video, Audio, Mux, and PSI.

ZyCast4K

ZyCast Ultra HD Series Overview **Encoder Setup** Output Setup Network Setup System Setup Administration

Encoder Setup

This page is a user-configurable page to read, write and select the encoder parameters.

Video **Audio** Mux PSI

Video Codec

H.265

RC Mode

CBR

Bit Rate (Mbps)

16

VBR Max Rate (Mbps)

18

HDCP (Test Mode)

Enable

Video Setting

Users can setup video encoding parameters in this section.

Encoder Setting	Default	Settings Available
Video Codec*	H.265	H.265 H.264
RC Mode**	VBR	CBR VBR
Bit Rate (Mbps)	16	H.265: 1~30 Mbps H.264: 1~30 Mbps
VBR Max Bit Rate (kbps)	18	H.265: 2~40 Mbps H.264: 2~40 Mbps
HDCP (Test Mode)	Disable	Disable Enable

*Video Codec – Please make sure your TVs are capable of receiving H.265 format. If not, please use H.264 as video encoding format. Please be noted that when using H.264 video encoding, HDMI input resolution is supported up to 4Kp30/25. If HDMI input is 4Kp60/50 and using H.264 as video codec, output video will be colorbar.

**RC Mode - Rate Control Mode of the video encoding, constant bit rate or variable bit rate.

Audio Setting

Users can setup audio encoding parameters in this section.

Audio Setting	Default	Settings Available
Audio Output	AC-3	MP2 AAC AC-3
Audio Bit Rate	192 Kbps	64 96 128 192 256 384 Kbps

Mux Setting

Users can setup additional encoder parameters in this section.

Mux Setting	Default	Settings Available
TSID*	1	0~65535
SID*	1	0~65534
PMT PID	1001	32~4999, 5004~7936
Video PID	1002	32~3840
PCR PID	1002	Assigned by Device
Audio PID	1003	Assigned by Device
System**	DVB	ATSC DVB

*** Incrementally change TSID and SID if more than 1 unit is in the same system.**

****** Select ATSC for ATSC and J.83B Standards

****** Select DVB for DVB-T, DVB-C and ISDB-Tb Standards

PSI (Program Specific Information) Setting


Users can setup program information in this section.

PSI Setting	Default	Settings Available
LCN (Channel Number)	101	1~999
LCN Mode	AU	EACAM ITC NorDig APN NZ AU Colombia
Channel Name	CHANNEL-1	Assigned by User
Provider Name	ZyCast	Assigned by User

Note: **Save and Confirm** all changes made to the Encoder Setup Page. Leaving without saving the set parameters will cause the device to revert to the last saved settings.

Output Setup – RF Out Page

Use the [RF Output Setup] page to set the RF output parameters.



ZyCast

 Ultra HD Series

Overview

Encoder Setup

Output Setup

Network Setup

System Setup

Administration

RF Output Setup

This page is a user-configurable page to read, write and select the RF output parameters.

Modulation

DVB-T

Country / Bandwidth

7 MHz

RF Settings

	RF 1
Enable	<input checked="" type="checkbox"/> 1
Original Network ID	8228
Network ID	12801
Network Name	ZyCast
RF Output	Normal
Channel / Frequency	39 (606.5000 MHz)
Bandwidth (MHz)	7
Constellation	64 QAM
FEC	7/8
Guard Interval	1/32
OFDM Mode	8k
Maximum Allowable Bit Rate (Mbps)	16.282/ 27.710

The U5 encoder offers the integrator the ability to select from a variety of multiple standards: DVB-T, DVB-C, ISDB-Tb, ATSC, J.83B (QAM-B). If users wish to use DVB-T2, please contact your distributor for FW license. Below illustrates the parameters for DVB-T. If you require instructions for other standards, please contact your distributor.

DVB-T RF Out Setting

1. **Select** Modulation Standard and Bandwidth
2. **Enable** RF Output by Checking the Checkboxes
3. **Modify** Original Network ID and Network ID if Needed (Device assigns the value according to bandwidth chosen.)
4. **Modify** Network Name as Desired
5. **Select** Output Mode: Normal or Inverted
6. **Select** Output Frequency

7. **Select** Output Constellation: 16QAM or 64QAM
8. **Select** FEC: 7/8 or 5/6 or 3/4 or 2/3 or 1/2
9. **Select** Guard Interval: 1/4 or 1/8 or 1/16 or 1/32
10. **Select** OFDM Mode: 8K or 2K
11. **Save and Confirm** All Changes Made

Output Setup – IP Out Page

Use the [IP Output Setup] page to set the IP output destinations.

Multicast Streaming

1. **Enable** Multicast Streaming
2. **Enter** Multicast Streaming Destination and Port Number

Examples:

rtp://IP_address:Port_Number	rtp://224.1.1.1:10000
udp://IP_address:Port_Number	udp://224.1.1.10:50001

3. **Enter** TTL (Time to Live) Value
4. **Save and Confirm** All Changes Made

Unicast Streaming

1. **Enable** Unicast Streaming(s) as Needed
2. **Enter** Unicast Streaming Destination and Port Number

Examples:

rtp://IP_address:Port_Number	rtp://192.168.100.201:5000
udp://IP_address:Port_Number	udp://192.168.100.202:6000

3. **Save and Confirm** All Changes Made

Note: Users can stream up to 5 unicast streams at one time.

RTSP Streaming

1. **Enable** RTSP Streaming. The device automatically assigns the output destination based on its IP Address.
Note: Multicast RTSP is only available when there is a RTP multicasting streaming output.
2. **Copy** URL of RTSP Stream.
3. **Save and Confirm** All Changes Made

SRT Streaming

The U5 is capable of SRT streaming. SRT (Secure Reliable Transport) is an open-source transport protocol created by Haivision. It allows for video streaming over the public internet without any intermediary device. It is used around the world to transport video over the internet.

Below is a step by step set up for 3 modes of SRT: Listener Mode / Caller Mode / Rendezvous Mode.

Note: The device requires accurate time stamping for SRT functionality. Please go to **[Network Setup]** page to connect the device to Internet, and go to **[System Setup]** page to set up NTP server under Time Tab.

Listener Mode

1. **Enable** SRT Streaming
2. **Select** Listener Mode
3. **Set** Listen Port:
Public Port the Firewall Opens at Listener Device Side
Note: Caller Port is Not Needed Under Listener Mode
4. **Set** Latency(ms) as Desired
5. **Set** Bandwidth(%) as Desired
6. **Enter** Passphrase for Stream Security (Optional)
7. **Save and Confirm** All Changes Made

Note 1: Listener Mode requires access to on-premises routers/NAT to ensure listen port is allowed.

Note 2: Listener Mode requires a “Caller” device on the Internet/network to establish connection.

Note 3: It is suggested NOT to use port from 0~1024 to avoid conflict with assigned ports for TCP and UDP protocols on Internet.

Caller Mode

1. **Enable** SRT Streaming
2. **Select** Caller Mode
3. **Enter** IP Address:
Public IP Address for the Firewall at Listener Device Side
4. **Set** Listen Port:
Public Port the Firewall Opens at Listener Device Side
5. **Set** Caller Port:
Public Port the Firewall Opens at Caller Device Side
6. **Set** Latency(ms) as Desired
7. **Set** Bandwidth(%) as Desired
8. **Enter** Passphrase for Stream Security (Optional)
9. **Save and Confirm** All Changes Made

Note 1: Caller Mode requires access to on-premises routers/NAT to ensure caller port is allowed.

Note 2: Caller Mode requires a “Listener” device on the Internet/network to establish connection.

Note 3: It is suggested NOT to use port from 0~1024 to avoid conflict with assigned ports for TCP and UDP protocols on Internet.

Rendezvous Mode

1. **Enable** SRT Streaming
2. **Select** Rendezvous Mode
3. **Enter** IP Address:
Public IP Address for the Firewall at the Other Rendezvous Device Side
4. **Set** Listen Port and Caller Port:
Under Rendezvous Mode, Use Same Port Number for the 2 Rendezvous Devices
5. **Set** Latency(ms) as Desired
6. **Set** Bandwidth(%) as Desired
7. **Enter** Passphrase for Stream Security (Optional)
8. **Save and Confirm** All Changes Made

Note 1: Rendezvous Mode does not require any NAT configuration on the local routers.

Note 2: Rendezvous Mode requires a “Rendezvous” device on the Internet/network to establish connection.

Note 3: It is suggested NOT to use port from 0~1024 to avoid conflict with assigned ports for TCP and UDP protocols on Internet.

Note: **Save and Confirm** all changes made to the Streaming Setup Page. Leaving without saving the set parameters will cause the device to revert to the last saved settings.

Streaming Capability: 5 Streams Simultaneously (Video at 30 Mbps)

The U5 was designed to output multiple streams at one time:

1 x Multicast Stream (UDP, RTP, RTSP)

4 x Unicast Stream (UDP, RTP, RTSP, SRT)

Output Setup – Recording Page

Use the **[Recording Setup]** page to configure recording parameters.

1. **Attach** USB Drive to the front of the unit.
2. **Enable** Recording
3. **Set** Start Date / Start Time as Desired (Time is based on the UTC time in **[System Setup]** page.)
4. **Set** End Date / End Time as Desired (Time is based on the UTC time in **[System Setup]** page.)
5. **Save and Confirm** All Changes Made

Note 1: If **HDCP (Test Mode)** is enabled in the **[Encoder Setup]** Page, users can not record the streaming content.

Network Setup Page

Use the [Network Setup] page to set IP Addresses and network related parameters.

ZyCast4K

ZyCast Ultra HD Series Overview Encoder Setup Output Setup **Network Setup** System Setup Administration

Network Setup

This page allows the user to configure the device's network settings.

NIC

Hostname U334406

MAC Address f8:0d:ea:d5:1a:46

DHCP ☒

IP Address 192.168.8.116

Subnet Mask 255.255.255.0

Default Gateway 192.168.8.254

DNS Server 1 192.168.8.254

DNS Server 2

1. **Modify** Hostname as Required
2. **Enable** DHCP (if Required) by Checking the Checkbox, or
3. **Enter** Static IP address
4. **Enter** Subnet Mask
5. **Enter** Default Gateway
6. **Enter DNS Server** Address (if Required)
7. **Enter NTP Server** Address (if Required)

Note: The U5 requires accurate time stamping for SRT functionality.

8. **Save and Confirm** All Changes

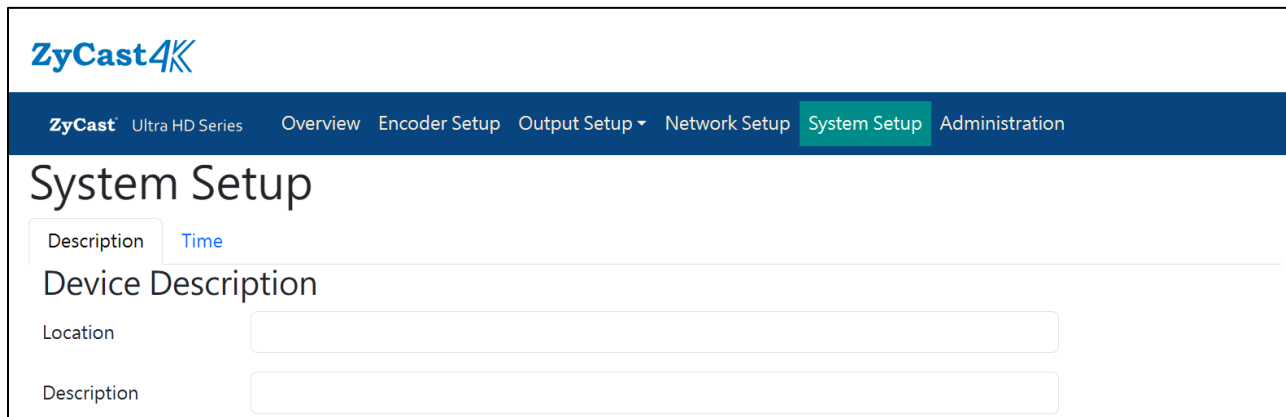
Forgot IP Address

See *Page 9* for details how to return to the default IP address (factory default) setting.

System Setup Page

Description

Use the [System Setup] page to designate location and description of the U5 unit.

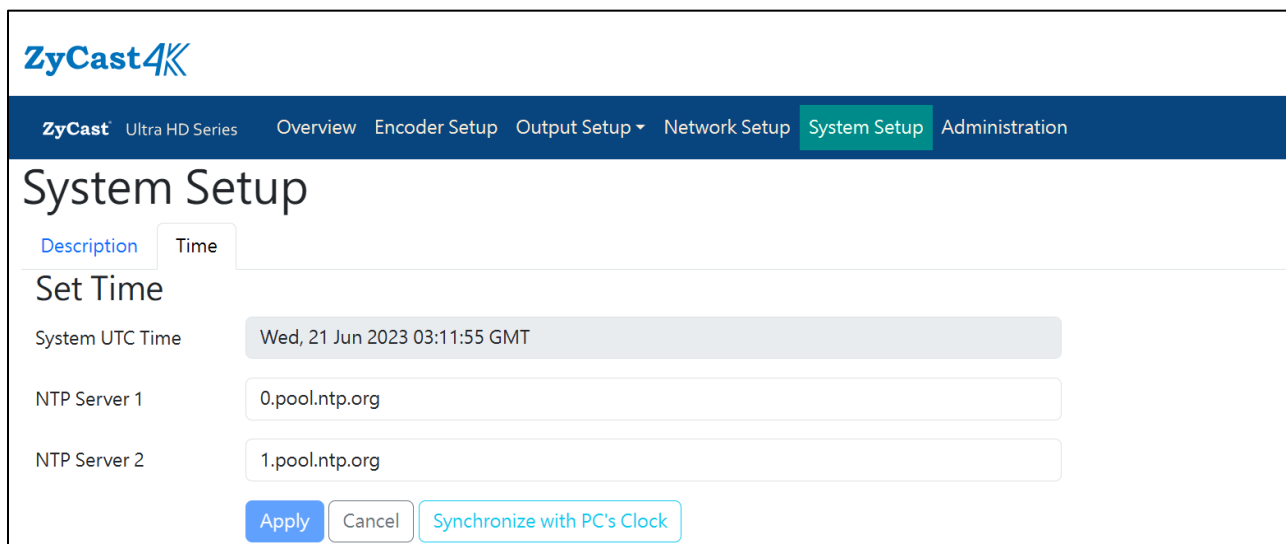


The screenshot shows the ZyCast4K web interface. The top navigation bar includes 'ZyCast', 'Ultra HD Series', 'Overview', 'Encoder Setup', 'Output Setup', 'Network Setup', 'System Setup' (highlighted), and 'Administration'. The main heading is 'System Setup'. Below it are two tabs: 'Description' (selected) and 'Time'. The 'Description' section is titled 'Device Description' and contains two input fields: 'Location' and 'Description'.

This info will be displayed on the [Overview] page.

Time / NTP Server Setup

Use the Time tab to set the unit's System Time and NTP Server.

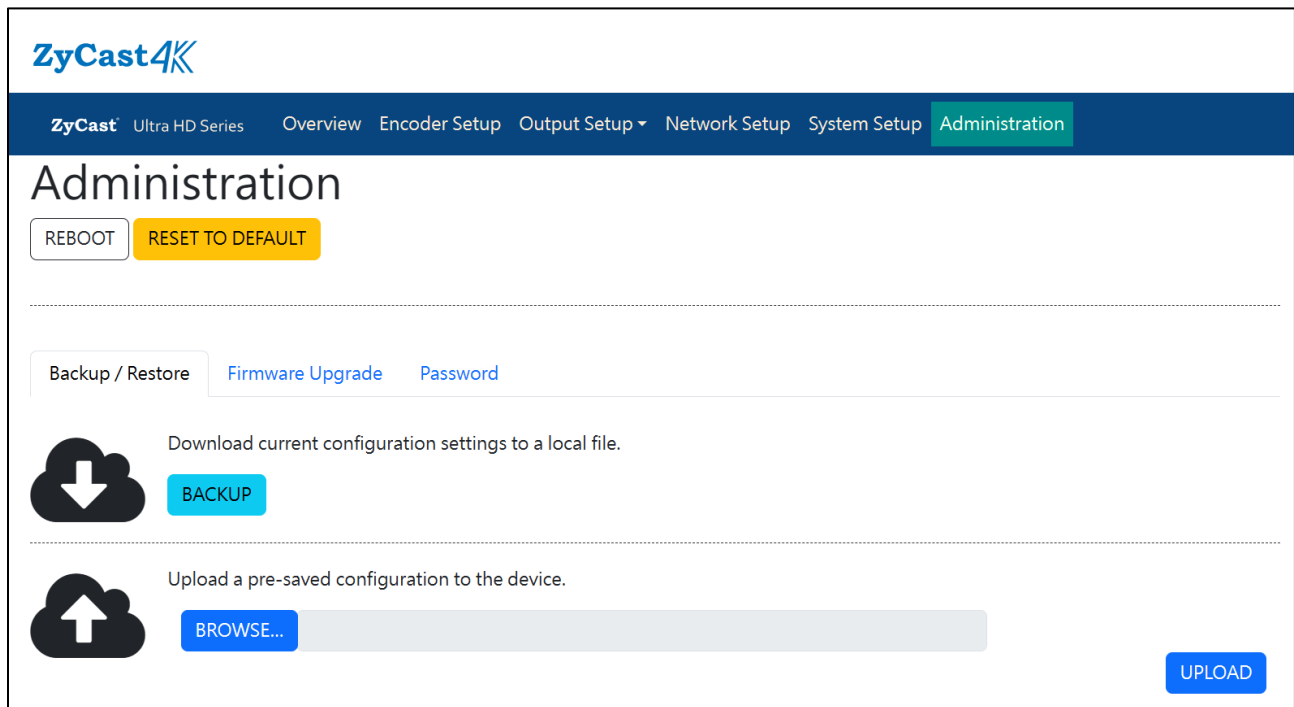


The screenshot shows the ZyCast4K web interface with the 'Time' tab selected. The main heading is 'System Setup'. Below it are two tabs: 'Description' and 'Time' (selected). The 'Time' section is titled 'Set Time' and contains the following fields and buttons:

- 'System UTC Time' field showing 'Wed, 21 Jun 2023 03:11:55 GMT'.
- 'NTP Server 1' field showing '0.pool.ntp.org'.
- 'NTP Server 2' field showing '1.pool.ntp.org'.
- 'Apply' button (blue).
- 'Cancel' button (light blue).
- 'Synchronize with PC's Clock' button (light blue).

1. **Select** Time Tab on System Setup Page
2. **Enter** NTP Server 1 / 2 Addresses as Required
Note: The U5 requires accurate time stamping for SRT functionality.
3. **Select** Synchronize System with PC Clock as Required
4. **Hit** **Apply** to Apply all Changes

Administration Page



Reboot

Use the **Reboot** button to reboot the device. No parameters will be changed. All unsaved changes will be lost.

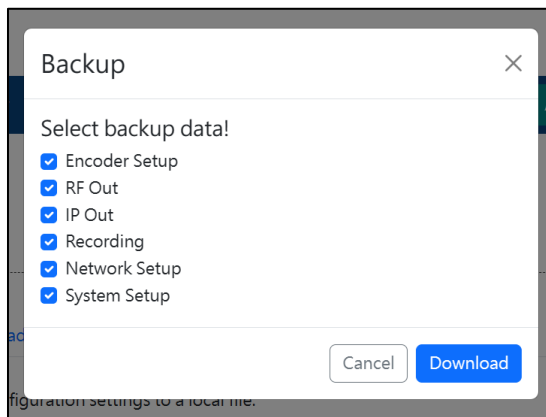
Reset to Default

Use the **Reset to Default** button to reset all parameters to original factory settings.

Backup

We highly recommend saving your device's settings. Backup can be imported to assist in setting up new or multiple devices on site. Remember to save and backup any and all changes.

1. **Hit Backup Button**
2. **User Can Choose Which Data to Backup from the Following Pages: Encoder Setup / RF Out / IP Out / Recording / Network Setup / System Setup**



3. **Locate and Name File for Future Use**

Restore

1. **Hit** Browse Button and Choose the Required File to be Imported
2. **Hit** Upload Button to Import the Selected File into the Device

Note: Do not power off the unit while importing.

Firmware Update

Use the Firmware Upgrade section to import new FW version if any update is required.


[Backup / Restore](#) [Firmware Upgrade](#) [Password](#)

Current Firmware

Model Number	U5
Serial Number	2323 334412
Firmware Version	1.1.6.202306201417t
Build Time	Tue Jun 20 2023 14:17:00 GMT+0800
Net Version	2.4.7

Update Firmware

Select a new firmware image file and Upload.



BROWSE...

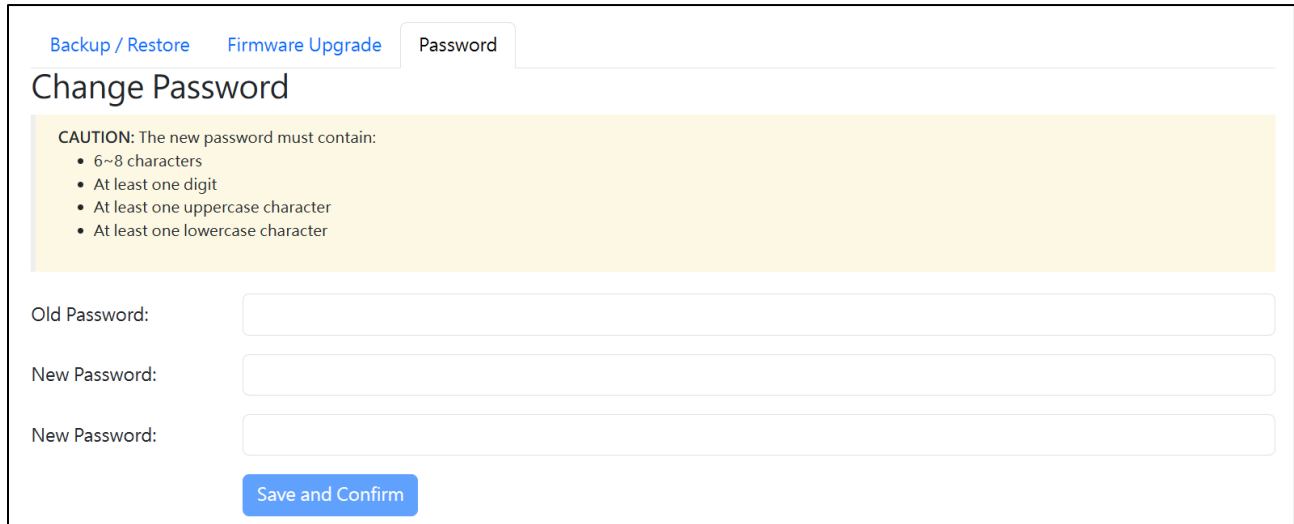
UPLOAD

1. **Select** Firmware Upgrade Tab
2. **Hit** Browse Button and Choose the Required Image File to be Uploaded
3. **Hit** Upload Button to Import the Selected Firmware into the Device

Note: Do not power off the unit while importing.

Change Password

Use the Password section to change or modify the device's password as desired.



1. **Select** Password Tab
2. **Follow** Listed Instructions
3. **Save and Confirm** to Apply New Password

Reference: Private Address Ranges, IPv4

Private IPv4 addresses are addresses set aside by the IANA (Internet Assigned Numbers Authority) for use within networks that will not directly communicate or not be seen by the internet. These private addresses cannot be used on the Internet or be used to communicate with the Internet. ISP's filter out and delete packets using private IP addresses. Any organization that uses private IP addresses on devices that communicate with the internet must use a device that performs Network Address Translation.

Anyone can use private addresses and they are not required to seek permission to use them. Again, networks using private IP addresses cannot communicate directly with the internet.

There are three blocks of addresses that are set aside by IANA for use in private internets and are not publicly routable on the global internet:

Private Class A Range: 10.0.0.0 - 10.255.255.255

Private Class B Range: 172.16.0.0 - 172.31.255.255

Private Class C Range: 192.168.0.0 - 192.168.255.255

It is important to note that only *some* of the 172.xx.xx.xx and the 192.xx.xx.xx address ranges are designated for private use. The remaining addresses are public and can be routable via the global Internet.

4K Video Receiving and Decoding

To play 4K video, please make sure the receiving devices are able to decode 4K content in HEVC and/or H.264. Please check the TV specifications for details. For users using PC as receiver and decoder for IP streaming, following are the recommended specifications for the PC:

	Item	4K @ H.264	4K @ HEVC
Windows PC	CPU	7th Generation Intel Core i7 processor equivalent or better	
	Graphics Card	NVIDIA GeForce GTX 1050 equivalent or better	
	RAM	8 GB or more	
	OS	Windows 7 or later	
MAC	Hardware	MacBook – 2013 or newer	MacBook Pro – 2016 or newer
			iMac (27-inch) – late 2015 or newer
			MacBook – early 2016 or newer
	OS	10.10 Yosemite or later	10.13 High Sierra or later
VLC Player	Version	3.0 or later	

Product Notes:

Model Number:	U5
Serial Number:	
Purchase Date:	
Purchased from:	
Install Date:	

Distributed by:

For More Information on Our Products, visit: www.zycasttech.com/digi-modbyzycast.com