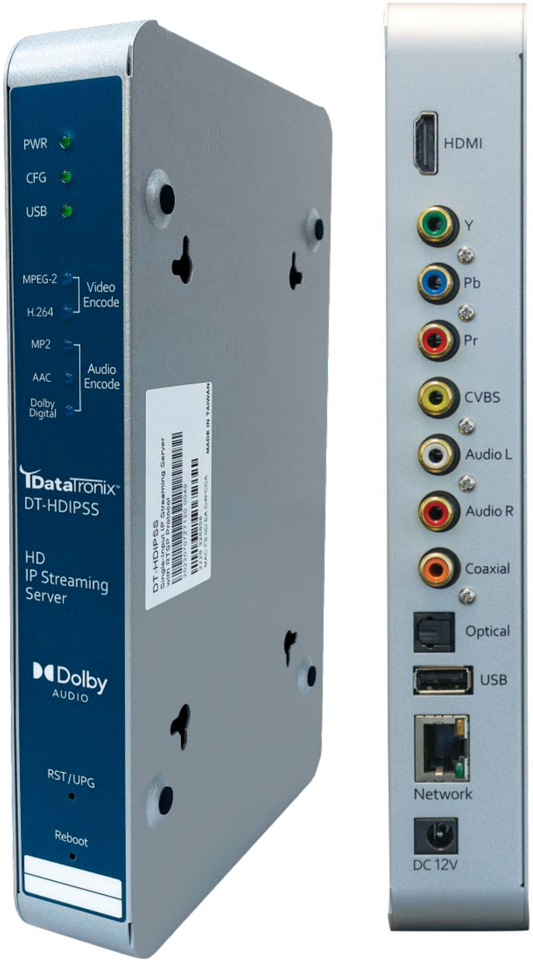
DataTronix™
Managed Data Solutions

DT-HDIPSS User Manual


PWR
CFG
USB
MPEG-2
H.264
Video Encode
MP2
AAC
Dolby Digital
Audio Encode
DataTronix
DT-HDIPSS
HD IP Streaming Server
Dolby AUDIO
RST/UPG
Reboot
HDMI
Y
Pb
Pr
CVBS
Audio L
Audio R
Coaxial
Optical
USB
Network
DC 12V

HD IP Streaming Server

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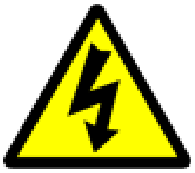
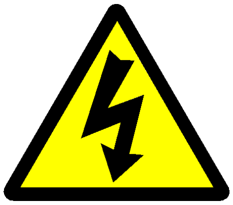
Safety Precautions



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 12VDC power supply with the center pin positive. The use of any other power supply could cause damage and invalidate the manufacturer's warranty.
- DO NOT power on the unit 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 ducts 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 power.



Package Contents

This package contains:

- One DT-HDIPSS IP Streaming Server
- One Power Adaptor
- One installation / configuration manual (An manual will be supplied)

Inspect the package before starting installation to ensure there is no damage and all supplied contents are present. Contact your distributor or dealer should the device be damaged or package contents are incomplete.

Product Description

DataTronix's DT-HDIPSS HD IP Streamer allows the user to stream any one audio/video source over an IP Network to multiple TV's or connected computers within the IP Network. The IP Streamer accepts a HDMI, component, or composite video input and the unit is designed to deliver a rich HD/SD streaming experience for its users deploying MPEG-2 or MPEG-4 standards.

The DT-HDIPSS HD streaming server enables high-definition streaming with resolutions up to 1080p, providing a high quality viewing experience for your customer. The unit is MPEG-2 or MPEG-4 switchable and supports UDP/RTP/RTSP streaming and Content Media Play Through via USB. The compact design saves space and is easily controlled via a web UI for rapid deployment.

The HDIP series features:

- Dual Mode H.264 (AVC) / MPEG-2 selectable output
- Video resolution: Up to 1080p60(H.264 only)
- HDMI, component, composite inputs with auto detection
- UDP/RTP/ Unicast/Multicast, DLNA compatible, TCP
- *** RTSP Unicast / Multicast
- USB Media Content Player Functionality
- Closed Captioning support
- Output audio format: MPEG-1-Layer2(MP2), AAC, Supports Dolby® Digital encoding
- *Dolby is a trademark of Dolby Laboratories.
- Gigabit Ethernet port
- Web UI for setup and control
- Quick and Easy installation and use
- Lightweight and compact design

Specifications

Interfaces	**Ethernet (output)**	Combined IP Output Port (1Gbps)/Management Port 10Mbps)
	USB	USB 2.0
	Video Input	HDMI, YPbPr, CVBS
	Audio Input	Analog, Coaxial SPDIF, Optical SPDIF
Encoding	**Output Video Format**	MPEG-2, H.264
	Output Audio Format	MPEG-1 Layer 2(MP2), MPEG-2 A AC, MPEG-4 A AC, Supports Dolby® Digital encoding*
	Resolution	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
	Output Video Bitrate	MPEG-2HD: 10-20 Mbps, MPEG-2 SD: 2-8 Mbps, H.264 HD: 2-10 Mbps, H.264 SD: 1-4 Mbps
	Output Audio Bitrate	96, 128, 192, 256, 384 Kbps
	Streaming Protocols	HTTP, UDP/RTP multicast, UDP/RTP unicast, TCP unicast
USB Media Player	**File Format Supported**	A MPEG Transport Stream file (with file name suffix ".ts"), A Matroska or WebM file (with file name suffix "mkv" or ",webm") An Ogg file (with file name suffix ".ogg", ".ogv", or "opus") A MPEG-1 or 2 Program Stream file (with file name suffix "mpg") A MPEG-4 Video Elementary Stream file (with the name suffix "m4e") A H.264 Video Elementary Stream file (with the name suffix ".264") A H.265 Video Elementary Stream file
MISC	**Digital Living Network Alliance (DLNA)**	MediaServer 1.5
	Closed Caption	Yes
	Power Supply	12VDC 1.5AMP
	Consumption	500mA
	Operating Temperature	+32°F to +113°F (0°C to +45°C)
	Storage Temperature	+14°F to +140°F (-10°C to +60°C)
	Dimension	9.29” x 6.10” x 1.37” (236mm x 155mm x 35mm)
	Weight	2 lbs. and 1.1575 oz. (940g)

*Manufactured under license from Dolby Laboratories. * Specifications subject to change without notification.

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.

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 or loose connectors contact your distributor immediately. Do not put the equipment into service if there is any indication of defect or damage.

Hardware Installation and Connections

It is highly recommended that quality cables and connectors be used for all video and audio source connections

1. Connect the media source (Satellite STB, Media player, or other media device) to the HDIP streaming server by HDMI, YPbPr, or CVBS cables.

2. Connect the HDIP streaming server to local area network (LAN)

3. Plug the power adapter to the device and power up

4. Network Setup

5. In the same network segment, find the HDIP streaming server from Windows XP/7 “My Network Places”

   ** Note: For Windows XP enable UpnP.

6. Open the streaming server’s configuration web page by double-clicking the device icon (XP)

7. There are four (4) use cases supported by HDIP streamer: DLNA media server,

UDP/RTP/RTSP multicasting, TCP/UDP/RTP/RTSP unicasting, and RTSP Media Player via USB.

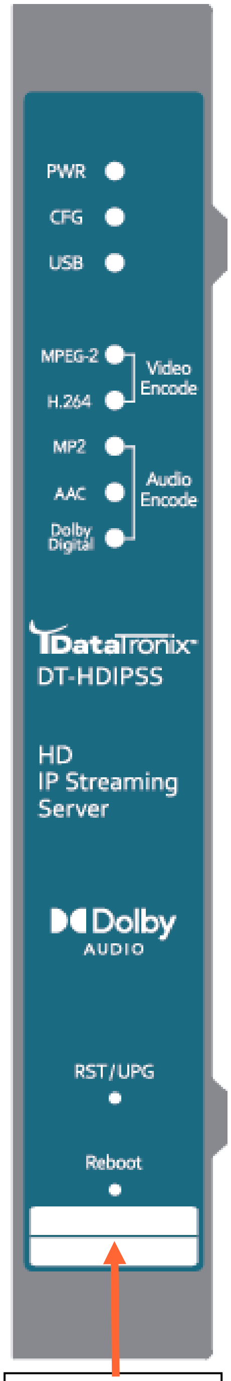
Limitations:

1. All UPnP/DLNA devices, including the HDIP streaming server (media-server), media-players, the SmartTV, the set-top-box, and the controlling PC, should be located within same network segment/LAN.

2. If a DHCP server is present in the private network, the HDIP streaming server will use the IP address assigned by the DHCP server.

3. If no DHCP server is present, the HDIP streaming server will use an assigned IP address (192.168.1.9).

Front Panel


PWR
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Audio Encode
DataTronix
DT-HDIPSS
HD IP Streaming Server
Dolby AUDIO
RST/UPG
Reboot

For Recording IP

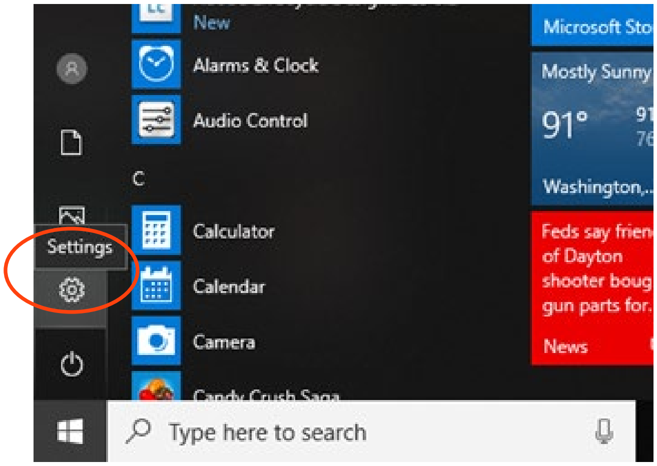
Buttons/LEDs	Description
Reboot button	Reboots the device (unsaved settings will be lost)
RST / UPG button	To reset all the settings of the device to factory default: 1.Press and hold the RST/UPG button and boot-up the device 2.Hold the button until CFG led to flashes 10 times (about 10 seconds) 3.After the CFG led stops flashing release the button To upgrade firmware using the USB port: 1.Plug-in the USB drive with the upgraded firmware image ("hdip_upg.img") 2.Press and hold the RST/UPG button and boot-up the device 3.USB led will flash while copying the image from USB drive (about 3~5 seconds) 4.Wait until the CFG led stop flashing 5.Release the RST/CFG button and wait for the device to reboot and upgrade the firmware (about 1 minute)
PWR	Power is ON
CFG	Indicates device is in configuration mode
USB	Indicates USB drive is mounted
MPEG-2	Indicates device is encoding video using MPEG-2
AVC	Indicates device is encoding video using AVC
MP2	Indicates device is encoding audio using MPEG-1 Layer 2
AAC	Indicates device is encoding audio using AAC
Dolby Digital	Indicates device is encoding audio using Dolby Digital

Procedure to connect to the Streaming Server via the Network port

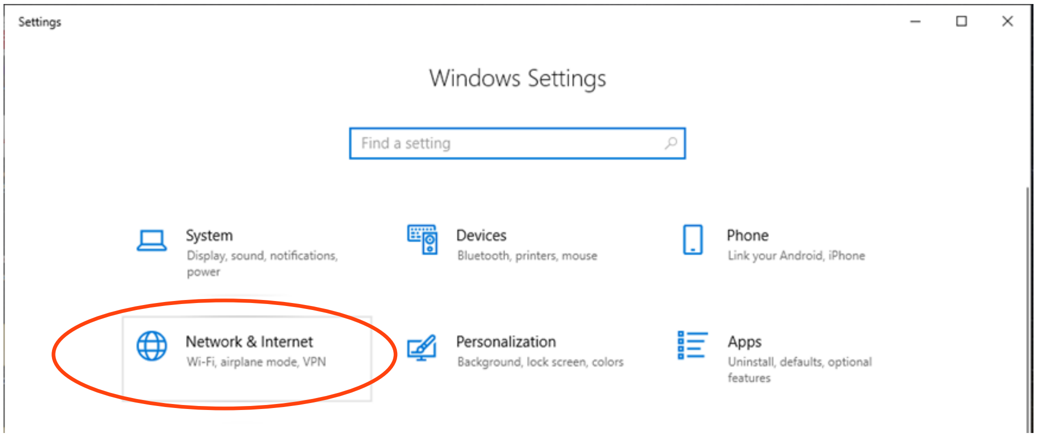
The following procedure will allow the installer to setup the Streaming Server via the GUI

1. Connecting a standard CAT5e/6 cable from HDIP Network port to a PC and power on HDIPSS.
2. Set the PC via the Control Panel to **192.168.1.10.** Below are the instructions for doing these.

a. **Start- Settings**

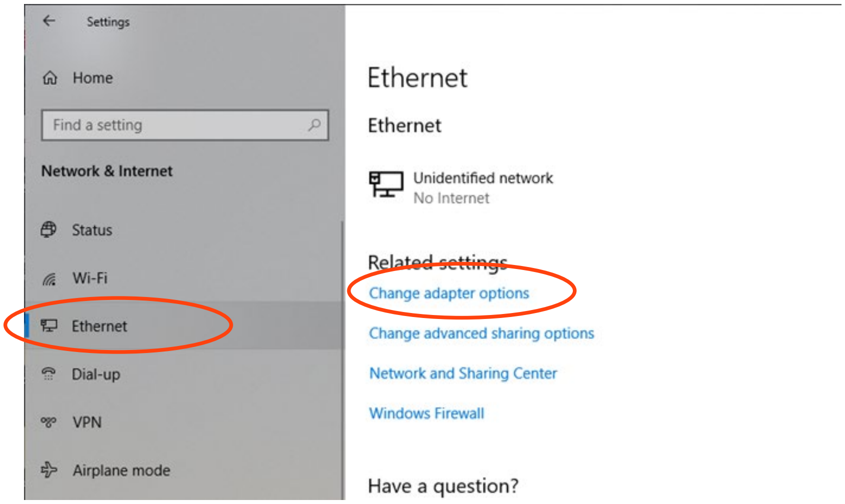

New
Alarms & Clock
Audio Control
C
Calculator
Calendar
Camera
Candy Crush Saga
Settings
Microsoft Sto
Mostly Sunny
91°
Washington,..
Feds say frien of Dayton shooter boug gun parts for.
News
Type here to search

3. **Select 'Network & Internet'**

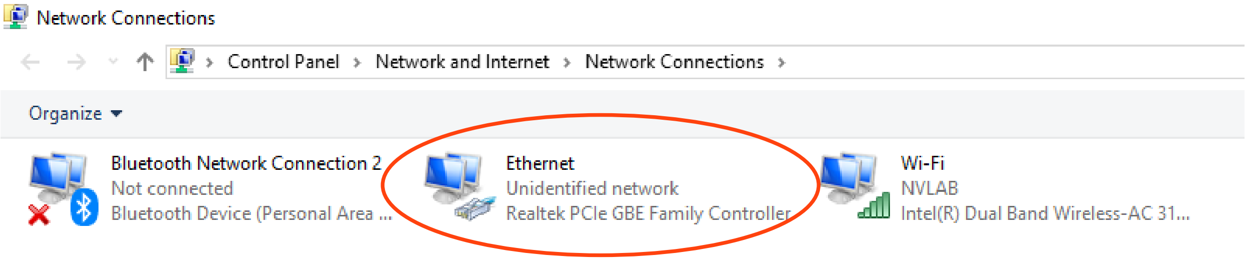

Settings
Windows Settings
Find a setting
System
Display, sound, notifications, power
Devices
Bluetooth, printers, mouse
Phone
Link your Android, iPhone
Network & Internet
Wi-Fi, airplane mode, VPN
Personalization
Background, lock screen, colors
Apps
Uninstall, defaults, optional features

4. Select **“Ethernet”**

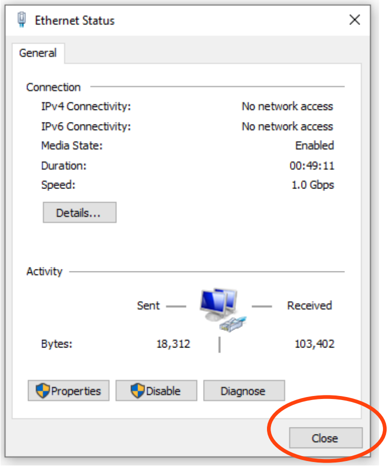
5. Then select **“Change adapter options”**


Settings
Home
Find a setting
Network & Internet
Status
Wi-Fi
Ethernet
Dial-up
VPN
Airplane mode
Ethernet
Ethernet
Unidentified network
No Internet
Related settings
Change adapter options
Change advanced sharing options
Network and Sharing Center
Windows Firewall
Have a question?

6. **Double click on “Ethernet”**

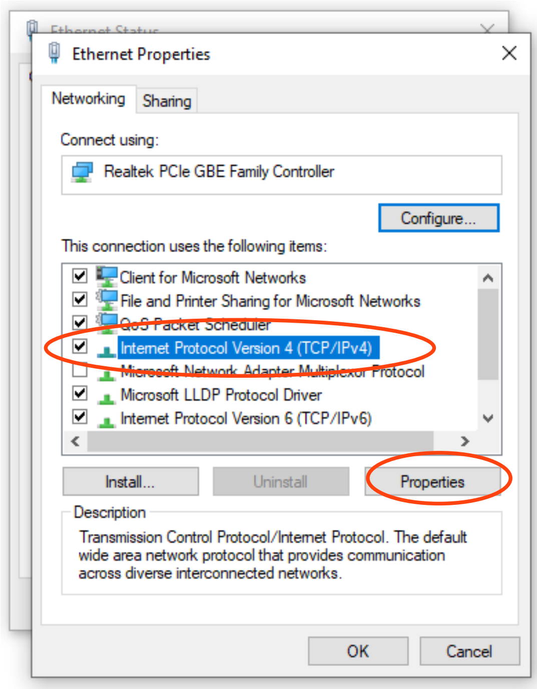

Network Connections
Control Panel › Network and Internet › Network Connections ›
Organize ▾
Bluetooth Network Connection 2
Not connected
Bluetooth Device (Personal Area ...
Ethernet
Unidentified network
Realtek PCIe GBE Family Controller
Wi-Fi
NVLAB
Intel(R) Dual Band Wireless-AC 31...

7. **Select “Properties”**


Ethernet Status
General
Connection
Details...
Activity
Sent
Received
Properties
Disable
Diagnose
Close

IPv4 Connectivity: No network access
IPv6 Connectivity: No network access
Media State: Enabled
Duration: 00:49:11
Speed: 1.0 Gbps
Bytes: Sent 18,312 Received 103,402

8. **Select "Internet Protocol Version 4 (TCP/IPV4)"**
9. Select **"Properties"**


Ethernet Status
Ethernet Properties
Networking
Sharing
Configure...
Install...
Uninstall
Properties
Description
OK
Cancel

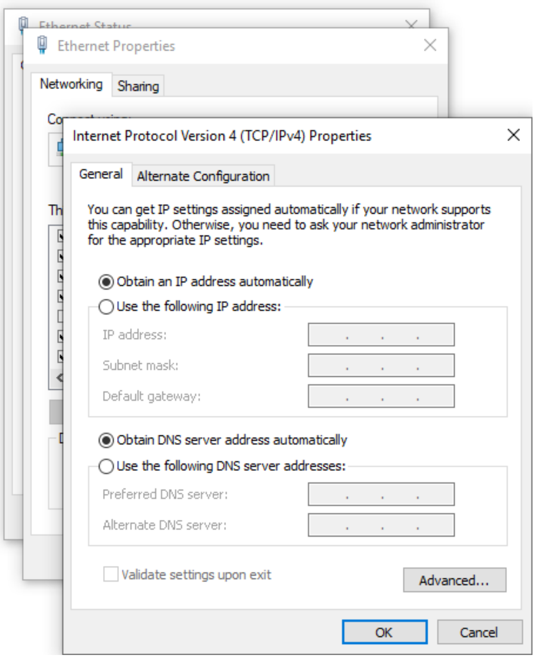
Connect using:
Realtek PCIe GBE Family Controller

This connection uses the following items:

☑ Client for Microsoft Networks
☑ File and Printer Sharing for Microsoft Networks
☑ QoS Packet Scheduler
☑ Internet Protocol Version 4 (TCP/IPv4)
☐ Microsoft Network Adapter Multiplexor Protocol
☑ Microsoft LLDP Protocol Driver
☑ Internet Protocol Version 6 (TCP/IPv6)

Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

10. **Select "Use the following IP address:"**


Ethernet Status
Ethernet Properties
Networking
Sharing
Internet Protocol Version 4 (TCP/IPv4) Properties
General
Alternate Configuration
Advanced...
OK
Cancel

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

● Obtain an IP address automatically
○ Use the following IP address:
IP address: . . .
Subnet mask: . . .
Default gateway: . . .

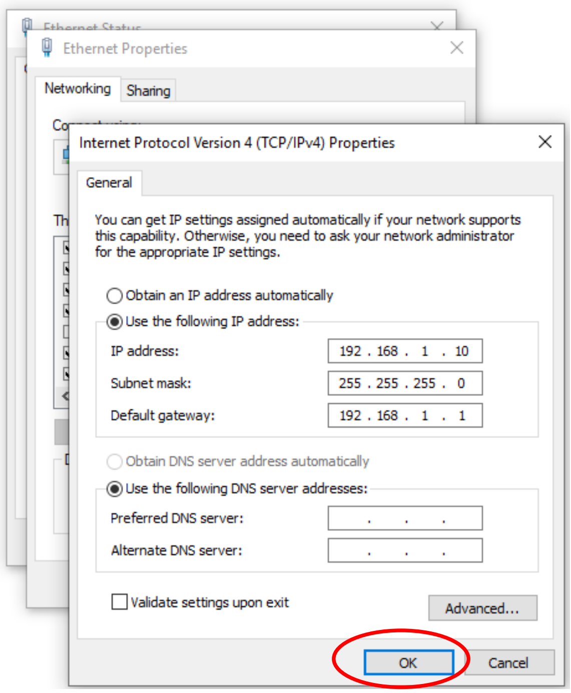
● Obtain DNS server address automatically
○ Use the following DNS server addresses:
Preferred DNS server: . . .
Alternate DNS server: . . .

☐ Validate settings upon exit

11. **Set IP address to: 192.168.1.10**

    Subnet mask: 255.255.255.0

    Default gateway: 192.168.1.1


Ethernet Status
Ethernet Properties
Networking
Sharing
General
OK
Cancel
Advanced...

Internet Protocol Version 4 (TCP/IPv4) Properties

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

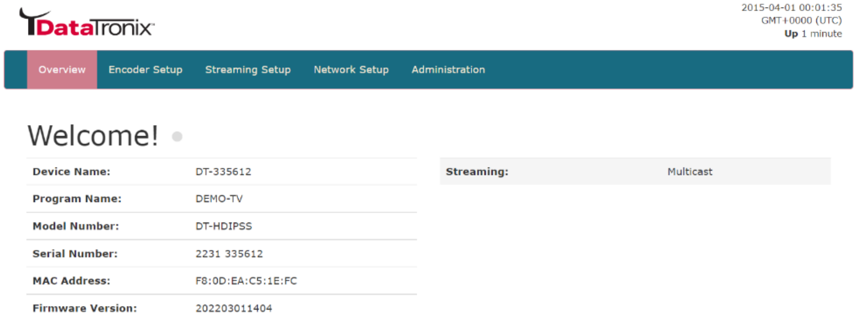
○ Obtain an IP address automatically
● Use the following IP address:
IP address: 192 . 168 . 1 . 10
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 1 . 1

○ Obtain DNS server address automatically
● Use the following DNS server addresses:
Preferred DNS server: . . .
Alternate DNS server: . . .

☐ Validate settings upon exit

12. **Select "OK" at the bottom of the all open windows.**

13. **Open web browser and type "192.168.1.9" into address bar.**
    You should now see the Graphic user interface.


Overview
Encoder Setup
Streaming Setup
Network Setup
Administration

2015-04-01 00:01:35
GMT+0000 (UTC)
Up 1 minute

Welcome!

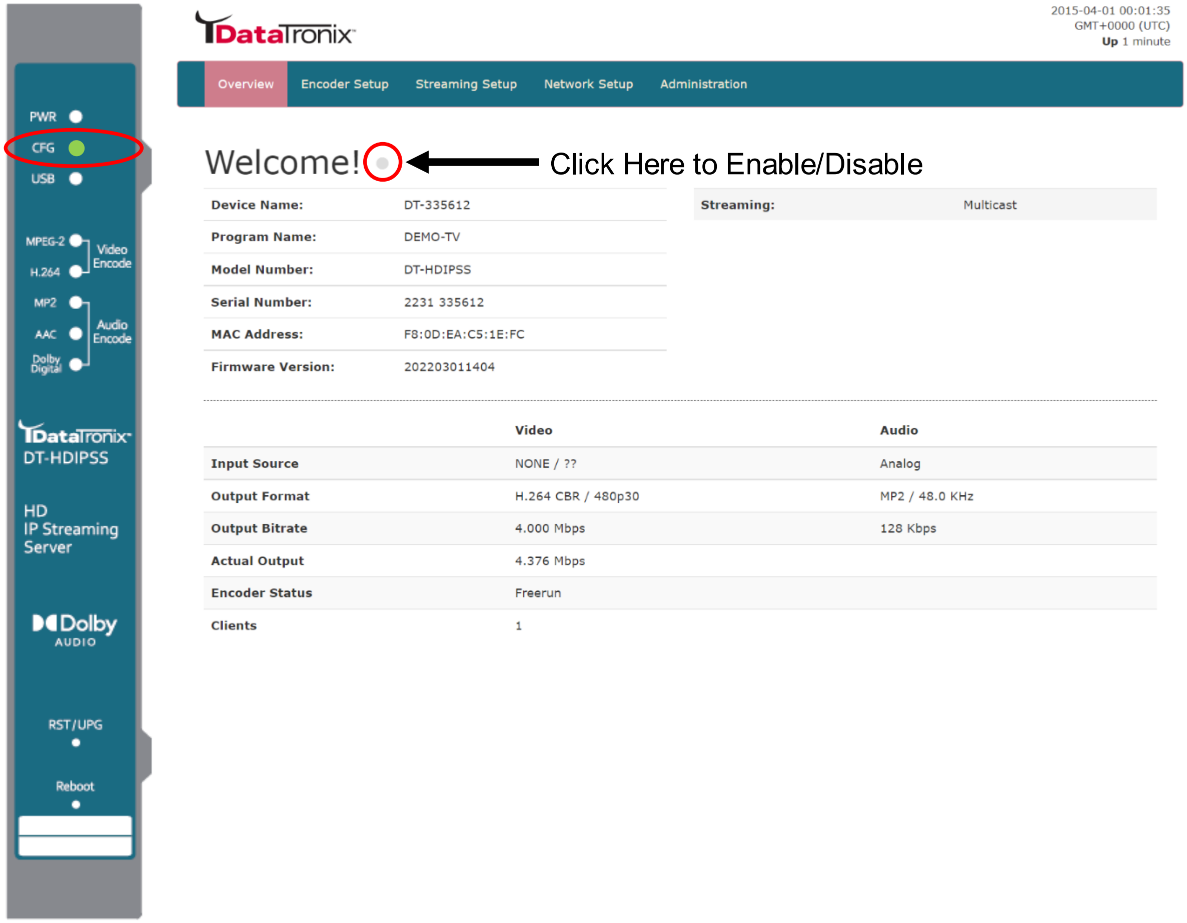
Device Name:	DT-335612
Program Name:	DEMO-TV
Model Number:	DT-HDIPSS
Serial Number:	2231 335612
MAC Address:	F8:0D:EA:C5:1E:FC
Firmware Version:	202203011404

Streaming:	Multicast

Overview / Welcome page displays current status of the encoder including Input type, Output format type, Output Bitrate, Actual Output, Encoder Status, and # of connected Clients.

On the Welcome Screen, we have added a tool to help the installer locate a unit in a rack or headend. Press the LED ON button (shown below). This will cause the CFG LED light to flash continuously for the installer to identify and locate the HDIP.

To turn off, simply press the LED tool again.


PWR
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Reboot
DataTronix
Overview
Encoder Setup
Streaming Setup
Network Setup
Administration

2015-04-01 00:01:35
GMT+0000 (UTC)
Up 1 minute

Welcome! ●

Click Here to Enable/Disable

Device Name:	DT-335612
Program Name:	DEMO-TV
Model Number:	DT-HDIPSS
Serial Number:	2231 335612
MAC Address:	F8:0D:EA:C5:1E:FC
Firmware Version:	202203011404

Streaming: Multicast

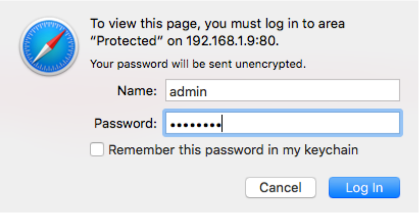
	Video	**Audio**
Input Source	NONE / ??	Analog
Output Format	H.264 CBR / 480p30	MP2 / 48.0 KHz
Output Bitrate	4.000 Mbps	128 Kbps
Actual Output	4.376 Mbps	
Encoder Status	Freerun	
Clients	1	

Login User and Password

Once the Welcome Page is displayed select the Encoder Setup tab and the below Login "Authentication required" screen will be presented. Enter the User Name and Password then click Login.

User Name: **admin** Default Password: **Admin123**

Note: User Password can be changed – ***See Administration Page***.


Cancel
Log In

To view this page, you must log in to area "Protected" on 192.168.1.9:80.

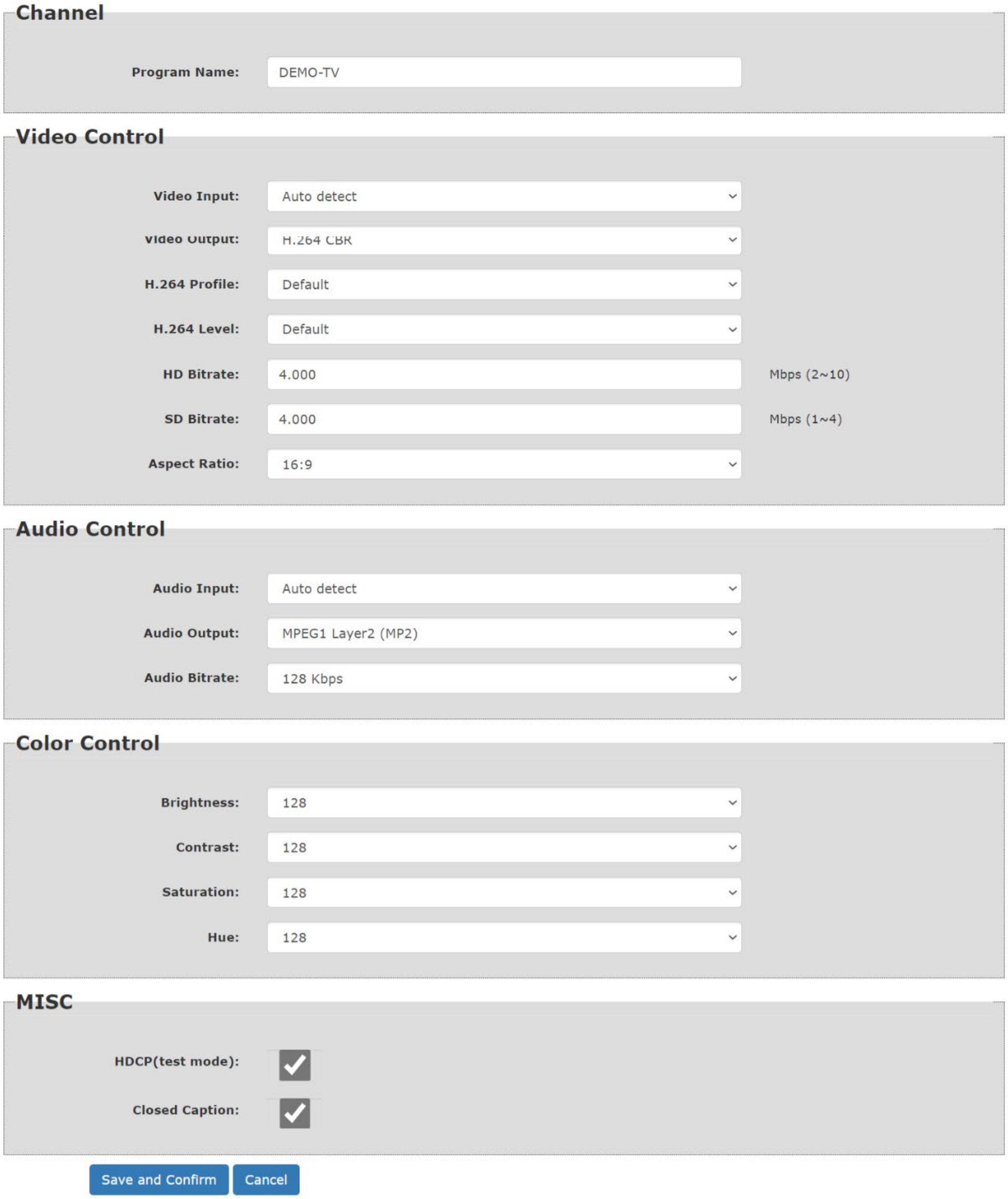
Your password will be sent unencrypted.

Name: admin

Password: ••••••••

☐ Remember this password in my keychain

Encoder Setup



Channel

Program Name: DEMO-TV

Video Control

Video Input: Auto detect

Video Output: H.264 CBR

H.264 Profile: Default

H.264 Level: Default

HD Bitrate: 4.000 Mbps (2~10)

SD Bitrate: 4.000 Mbps (1~4)

Aspect Ratio: 16:9

Audio Control

Audio Input: Auto detect

Audio Output: MPEG1 Layer2 (MP2)

Audio Bitrate: 128 Kbps

Color Control

Brightness: 128

Contrast: 128

Saturation: 128

Hue: 128

MISC

HDCP(test mode): ☑

Closed Caption: ☑

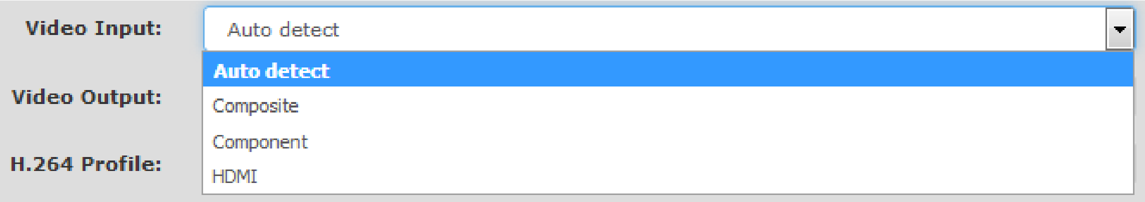
Encoder Setup

The DT-HDIPSS provides the user with a variety of parameter settings. Many of the default settings will allow the user to quickly start streaming video. Only some of the settings shown will require any change.

Video Control

Select Video Input

Setting the device to ***Auto Detect*** allows the Encoder to automatically recognize which video source the user is using.



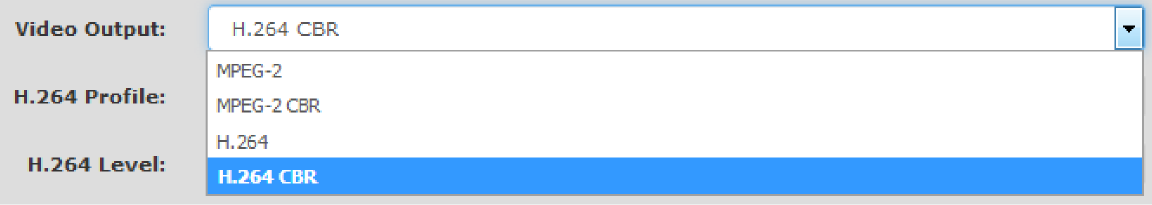
Video Input: Auto detect

Video Output:
H.264 Profile:
Auto detect
Composite
Component
HDMI

Selecting HDMI, Component, or Composite “locks” the encoder to detect only the input type selected.

Note: We recommend using the Factory default 'Auto Detect'

Set Video Output Format



Video Output: H.264 CBR

H.264 Profile:
H.264 Level:
MPEG-2
MPEG-2 CBR
H.264
H.264 CBR

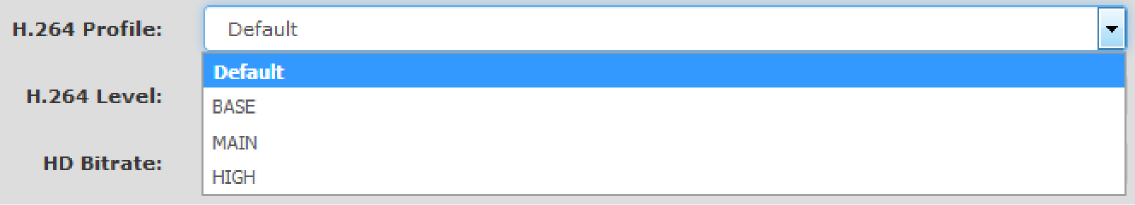
The DT-HDIPSS can output High Quality HD/SD video streams in either MPEG-2, MPEG-2 CBR (Constant Bit Rate), H.264, H.264 CBR.

Select the desired Video Output Format

Factory Default: H.264 CBR

Select H.264 Profile (Only for H.264/H.264 CBR)

Selecting H.264 or H.264 CBR allows the user to define / set the H.264 Profile required



H.264 Profile: Default

Select H.264 Levels (Only for H.264/H.264 CBR)

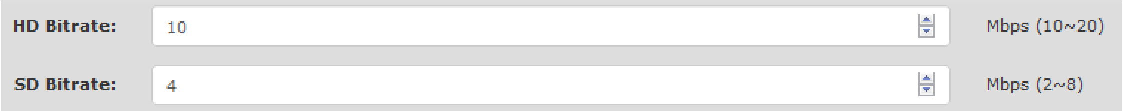
Selecting H.264 orH.264 CBR allows the user to define / set the H.264 Levels required

Setting the Video Bitrate: HD / SD

MPEG-2 Video Bitrates

HD: 10~20 Mbps (default- 10 Mbps)

SD: 2~8 Mbps (default- 4 Mbps)



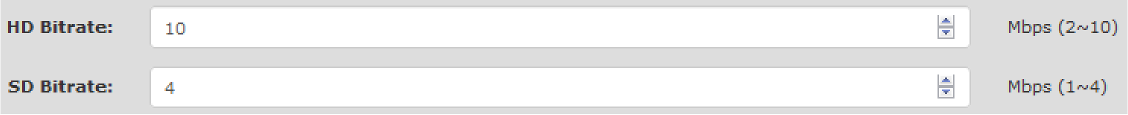
HD Bitrate: 10 Mbps (10~20)

SD Bitrate: 4 Mbps (2~8)

H.264 Video Bitrates

HD: 2~10 Mbps (default- 10 Mbps)

SD: 1~4 Mbps (default- 4 Mbps)



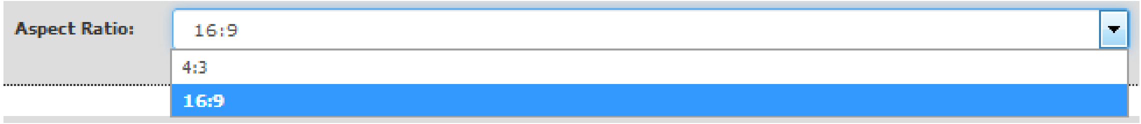
HD Bitrate: 10 Mbps (2~10)

SD Bitrate: 4 Mbps (1~4)

The DT-HDIPSS allows the user to set the Video Bitrate desired within the defined parameters offered.

Set or use the default settings as required.

Select Aspect ratio



Aspect Ratio: 16:9

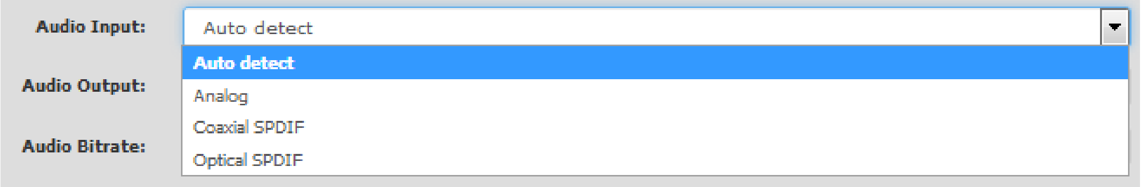
Select :16:9 **(default)** or 4:3

Audio Control

Select Audio Input

Setting the device to ***Auto Detect*** allows the Encoder to automatically recognize which Audio Input source the user is using.

Selecting Analog, Coaxial SPDIF (Digital Coax), or Optical SPDIF (Toslink) “locks” the encoder to detect only this type of Audio Input.



Audio Input: Auto detect

Audio Output:
Audio Bitrate:
Auto detect
Analog
Coaxial SPDIF
Optical SPDIF

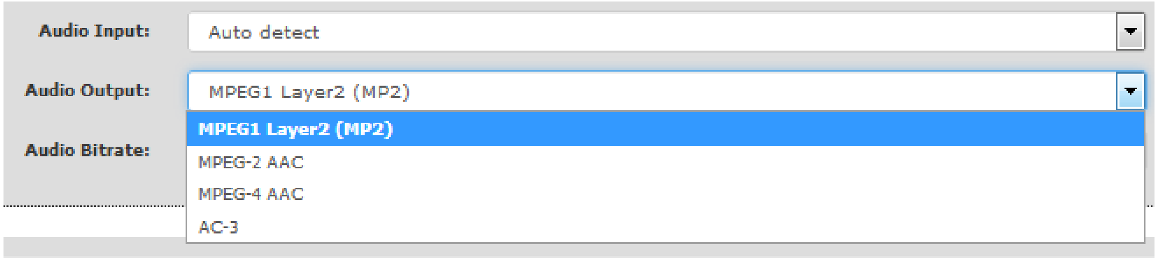
Note: We recommend using the Factory default 'Auto Detect'

Application Note:

If your Video Source is HDMI and you require an alternate Audio Source – **Select Analog.**

This will force the DT-HDIPSS to use the L/R RCA Audio Inputs as the Audio Source.

Select Audio Output Type



Audio Input: Auto detect

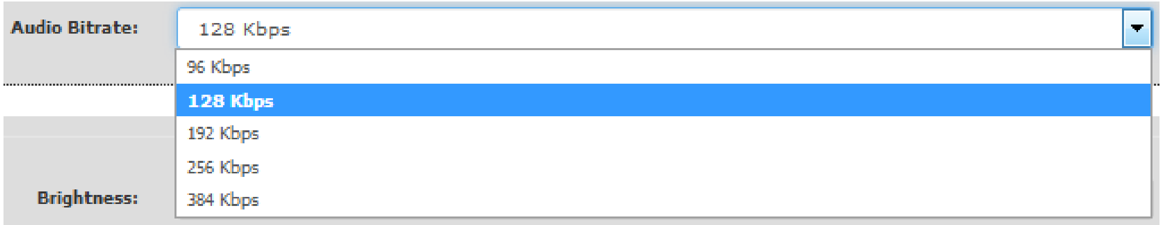
Audio Output: MPEG1 Layer2 (MP2)

Audio Bitrate:
MPEG1 Layer2 (MP2)
MPEG-2 AAC
MPEG-4 AAC
AC-3

Use the drop-down tool to select the Audio Format required.

Note: AC-3 Dolby Audio is not available on all HDIP Series Encoders

Select Audio Bitrate



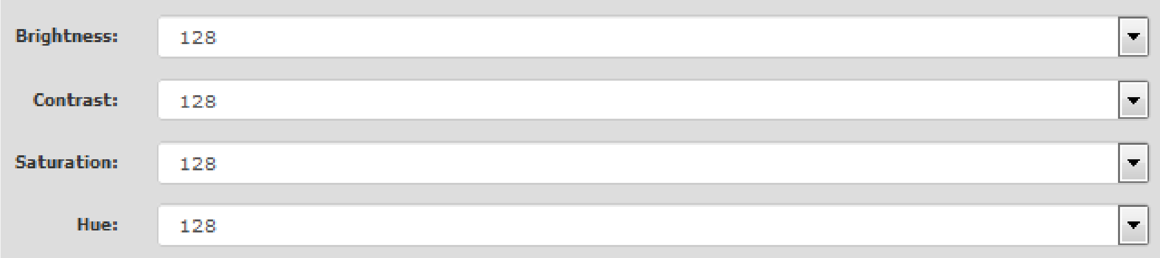
Audio Bitrate: 128 Kbps

96 Kbps
128 Kbps
192 Kbps
256 Kbps
384 Kbps
Brightness:

Use the drop-down tool to select the Audio Bitrate required

Color Control

Modify Brightness/Contrast/Saturation/Hue



Brightness: 128

Contrast: 128

Saturation: 128

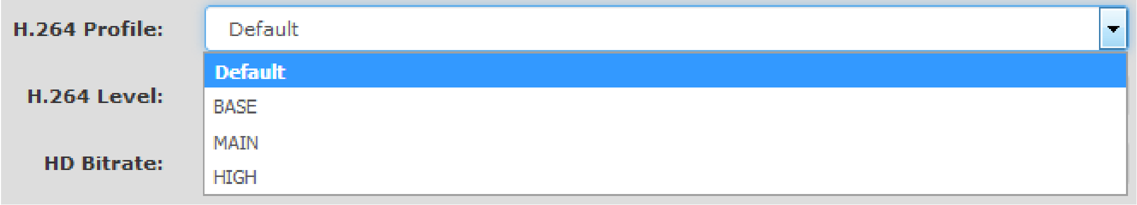
Hue: 128

Change the above settings as required on the Encoder.

Note: We recommend using the Factory default Factory ***Default: 128***

Select H.264 Profile (Only for H.264/H.264 CBR)

Selecting H.264 or H.264 CBR allows the user to define / set the H.264 Profile required



H.264 Profile: Default

Select H.264 Levels (Only for H.264/H.264 CBR)

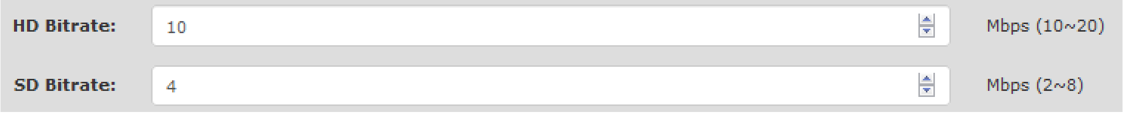
Selecting H.264 orH.264 CBR allows the user to define / set the H.264 Levels required

Setting the Video Bitrate: HD / SD

MPEG-2 Video Bitrates

HD: 10~20 Mbps (default- 10 Mbps)

SD: 2~8 Mbps (default- 4 Mbps)



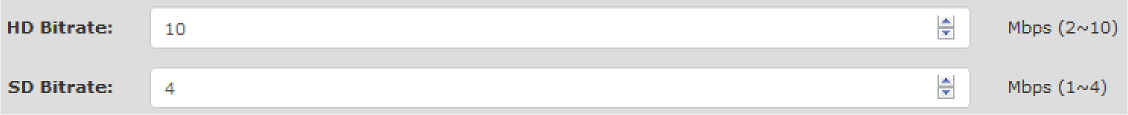
HD Bitrate: 10 Mbps (10~20)

SD Bitrate: 4 Mbps (2~8)

H.264 Video Bitrates

HD: 2~10 Mbps (default- 10 Mbps)

SD: 1~4 Mbps (default- 4 Mbps)



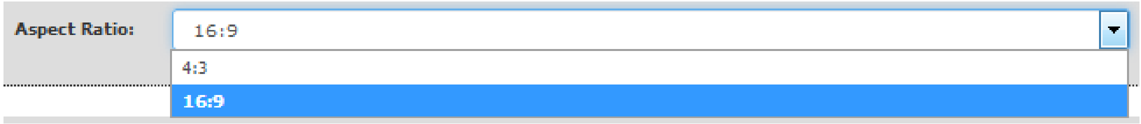
HD Bitrate: 10 Mbps (2~10)

SD Bitrate: 4 Mbps (1~4)

The DT-HDIPSS allows the user to set the Video Bitrate desired within the defined parameters offered.

Set or use the default settings as required.

Select Aspect ratio



Aspect Ratio: 16:9

4:3

16:9

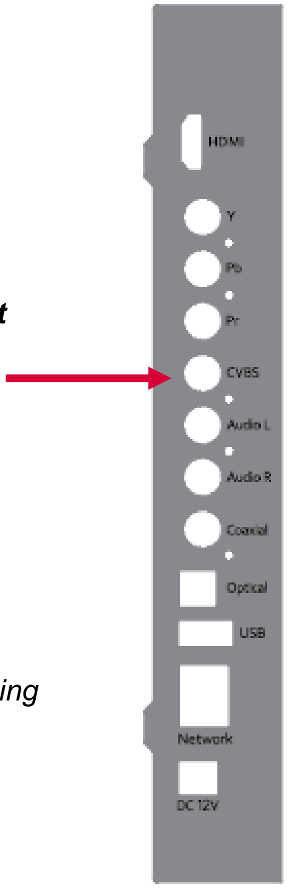
Select: 16:9 (default) or 4:3

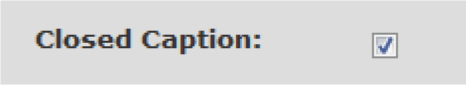
Enable Closed Captioning

Steps to Enable Closed Caption:

1. Connect Video source to HDMI or YPbPr port.
2. Connect Video with supporting Closed Caption source to CVBS port.
3. *A supporting Closed Caption Player/TV must be used for this function.*

Insert Closed Captioning Support device into the CVBS (Composite) Port





Closed Caption: ☑

Enable/Disable Closed Caption Functionality by checking the Checkbox as

Shown above.

Note: *Even with Closed Captioning enabled in the encoder- no closed captioning*

Support will be available unless the Closed Captioning Source is connected.

Save and Confirm *the changes made on the Encoder Page.*

Note: To reset all changes made or saved go to the Administration Page and select

Reset to Default.

After pressing the **Save and Confirm** button- the user will be brought back to the Overview page.

Leaving the encoder page without saving changes will cause the previous settings to be used.

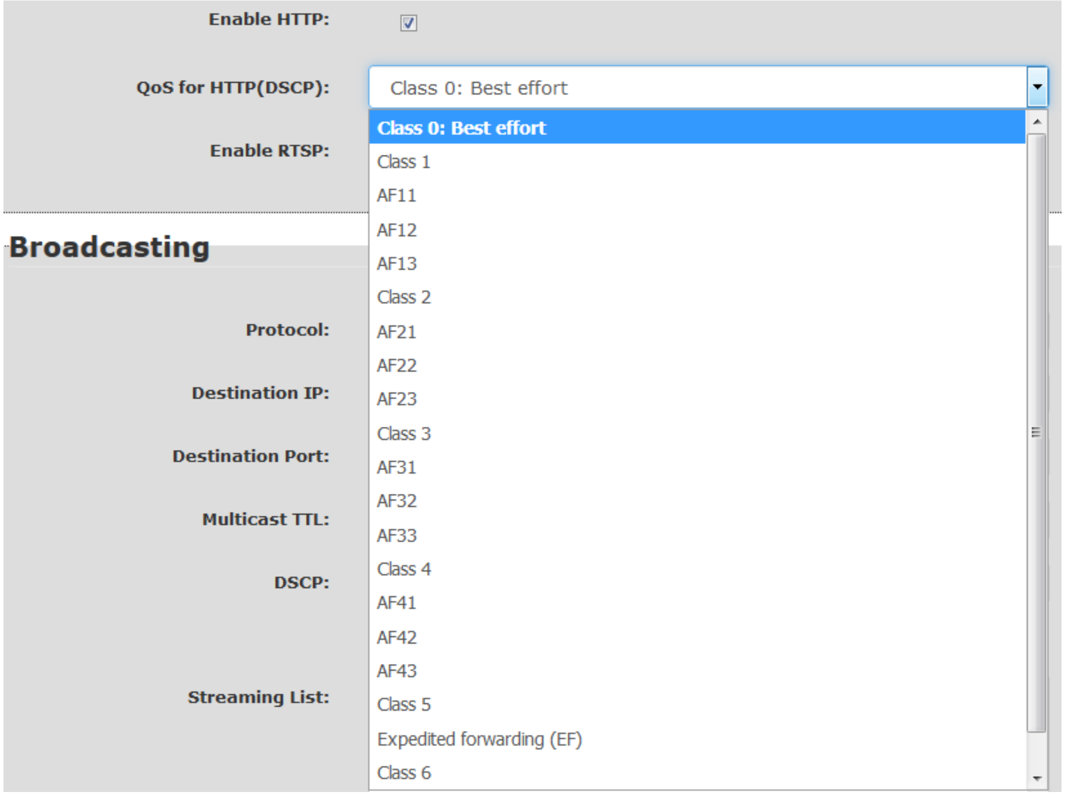
Streaming Setup

The DT-HDIPSS can be setup to stream via HTTP (DLNA) directly from the network to the DLNA application on a DLNA Compliant Smartv, directly to a PC using Multicast (UDP/RTP/RTSP) or to a HDTV by using a compatible set top box, or by Unicasting (UDP/RTP/RTSP) to a PC. Other applications will also function with the RTSP formats provided. The DT-HDIPSS can stream via HTTP and Multicast simultaneously.

Stream Server

HTTP (DLNA) Setup

Select 'Enable HTTP' for DLNA Streaming



Enable HTTP: ☑

QoS for HTTP(DSCP): Class 0: Best effort

Enable RTSP:
Broadcasting
Protocol:
Destination IP:
Destination Port:
Multicast TTL:
DSCP:
Streaming List:
Class 0: Best effort
Class 1
AF11
AF12
AF13
Class 2
AF21
AF22
AF23
Class 3
AF31
AF32
AF33
Class 4
AF41
AF42
AF43
Class 5
Expedited forwarding (EF)
Class 6

The DT-HDIPSS is DLNA Compliant and can create a stream that will be detected and displayed to any Smartv that is DLNA Compliant.

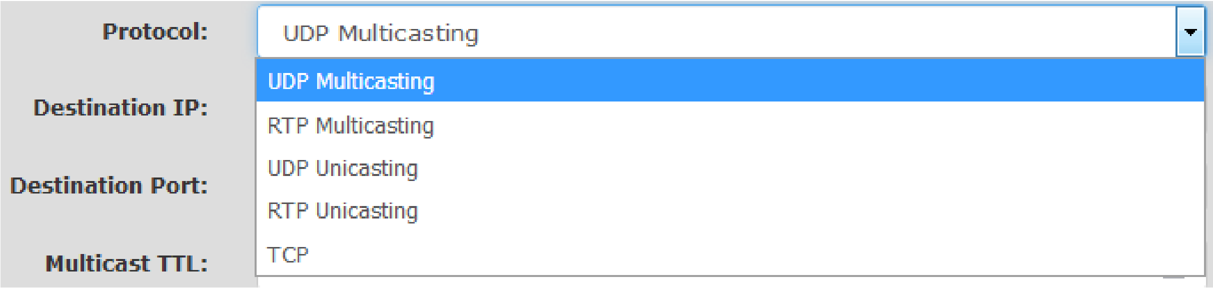
Enable HTTP as shown above and select the desired DSCP.

*****SAVE AND CONFIRM** all changes made on the Streaming Setup page

Newly Added Functionality:

The DT-HDIPSS can function as a Media Player via the use of a USB Drive while using RTSP streaming format. ***See RTSP Streaming.***

Broadcasting



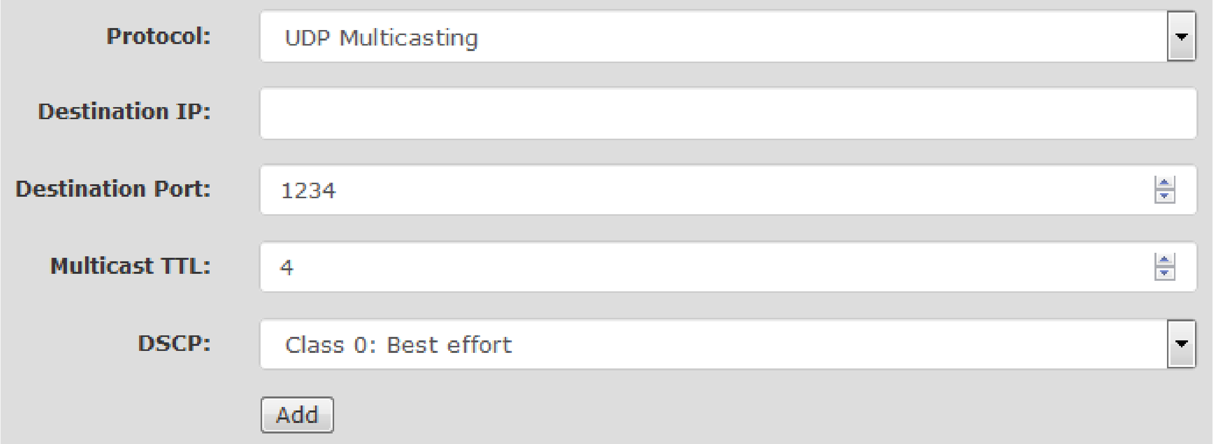
Protocol: UDP Multicasting

Destination IP:

Destination Port:

Multicast TTL:

Select the Broadcasting Protocol as above drop-down list. The Broadcasting is Default: UDP Multicasting



Protocol: UDP Multicasting

Destination IP:

Destination Port: 1234

Multicast TTL: 4

DSCP: Class 0: Best effort

Enter Multicast Destination IP Address and Destination Port.

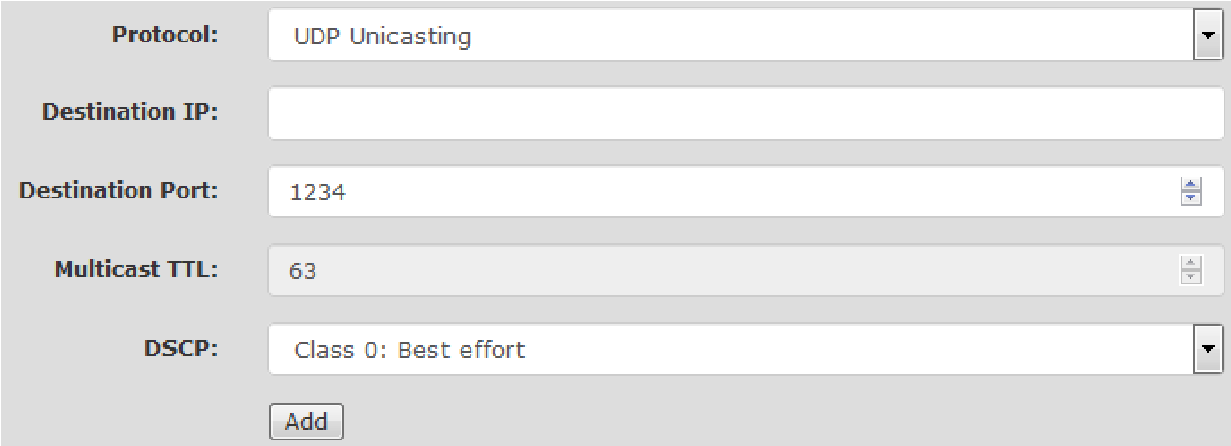
Multicast TTL (Time to Live) default is 4.

Select the desired DSCP from the drop-down list. Default is Class 0: Best effort.

Press Add after setting, the IP will be shown in the Streaming List.

*****SAVE AND CONFIRM** all changes made on the Streaming Setup page

Unicasting Setup



Protocol:	UDP Unicasting
Destination IP:	
Destination Port:	1234
Multicast TTL:	63
DSCP:	Class 0: Best effort

Unicast via UDP/RTP/TCP by using the drop-down tool to select the desired method

Enter '*Destination IP***' ,** '*Destination Port*', and select the desired DSCP from the drop-down list. Default is Class 0: Best effort.

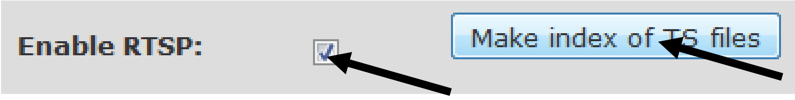
Press Add after setting, the IP will be shown in the Streaming List.

To remove a Destination IP – simply **select** the IP address and **Click** '*Remove*'.

Note: Add up to 16 Destinations to the Streaming List.

*****SAVE AND CONFIRM** all changes made on the Streaming Setup page

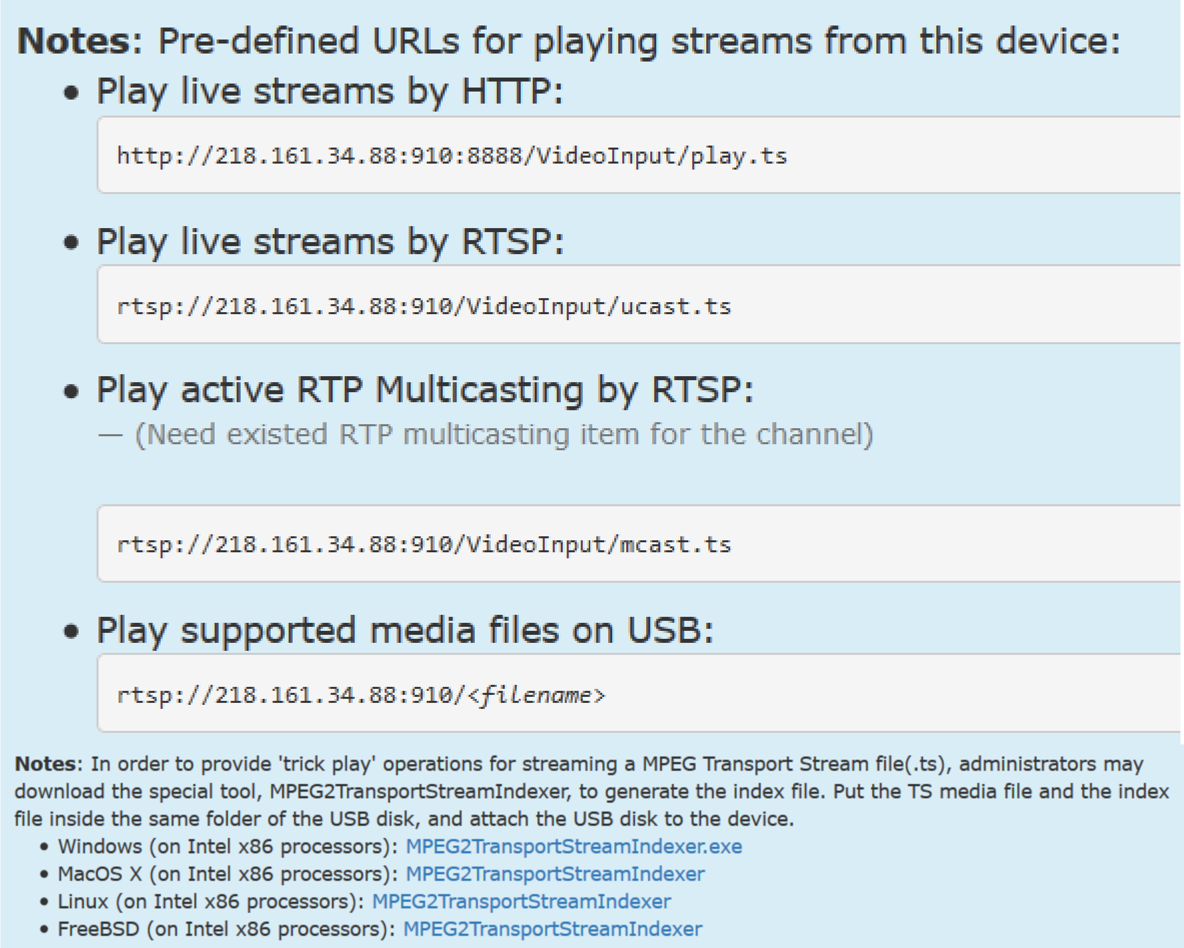
RTSP Streaming



Enable RTSP: ☑

Attach the USB disk with MPEG Transport Stream file(.ts) and index file to the device. Enable RTSP Streaming by checking the checkbox and press the Make index of TS files to make the index.

Please refer the instruction on the Notes below the Streaming Setup Page.



Notes: Pre-defined URLs for playing streams from this device:

- Play live streams by HTTP:

```
http://218.161.34.88:910:8888/VideoInput/play.ts
```

- Play live streams by RTSP:

```
rtsp://218.161.34.88:910/VideoInput/ucast.ts
```

- Play active RTP Multicasting by RTSP:
  — (Need existed RTP multicasting item for the channel)

```
rtsp://218.161.34.88:910/VideoInput/mcast.ts
```

- Play supported media files on USB:

```
rtsp://218.161.34.88:910/<filename>
```

Notes: In order to provide 'trick play' operations for streaming a MPEG Transport Stream file(.ts), administrators may download the special tool, MPEG2TransportStreamIndexer, to generate the index file. Put the TS media file and the index file inside the same folder of the USB disk, and attach the USB disk to the device.

- Windows (on Intel x86 processors): MPEG2TransportStreamIndexer.exe
- MacOS X (on Intel x86 processors): MPEG2TransportStreamIndexer
- Linux (on Intel x86 processors): MPEG2TransportStreamIndexer
- FreeBSD (on Intel x86 processors): MPEG2TransportStreamIndexer

RTSP Unicasting:
Use **“rtsp://device_IP_Address/VideoInput/ucast.ts”** format for RTSP Unicasting.
Example as shown above: “rtsp**://218.161.34.88:910/VideoInput/ucast.ts**”

RTSP Multicasting:
Use **“rtsp://device_IP_Address/VideoInput/mcast.ts**” format for RTSP Multicasting.
Example as shown above: **“rtsp://218.161.34.88:910/VideoInput/mcast.ts”**

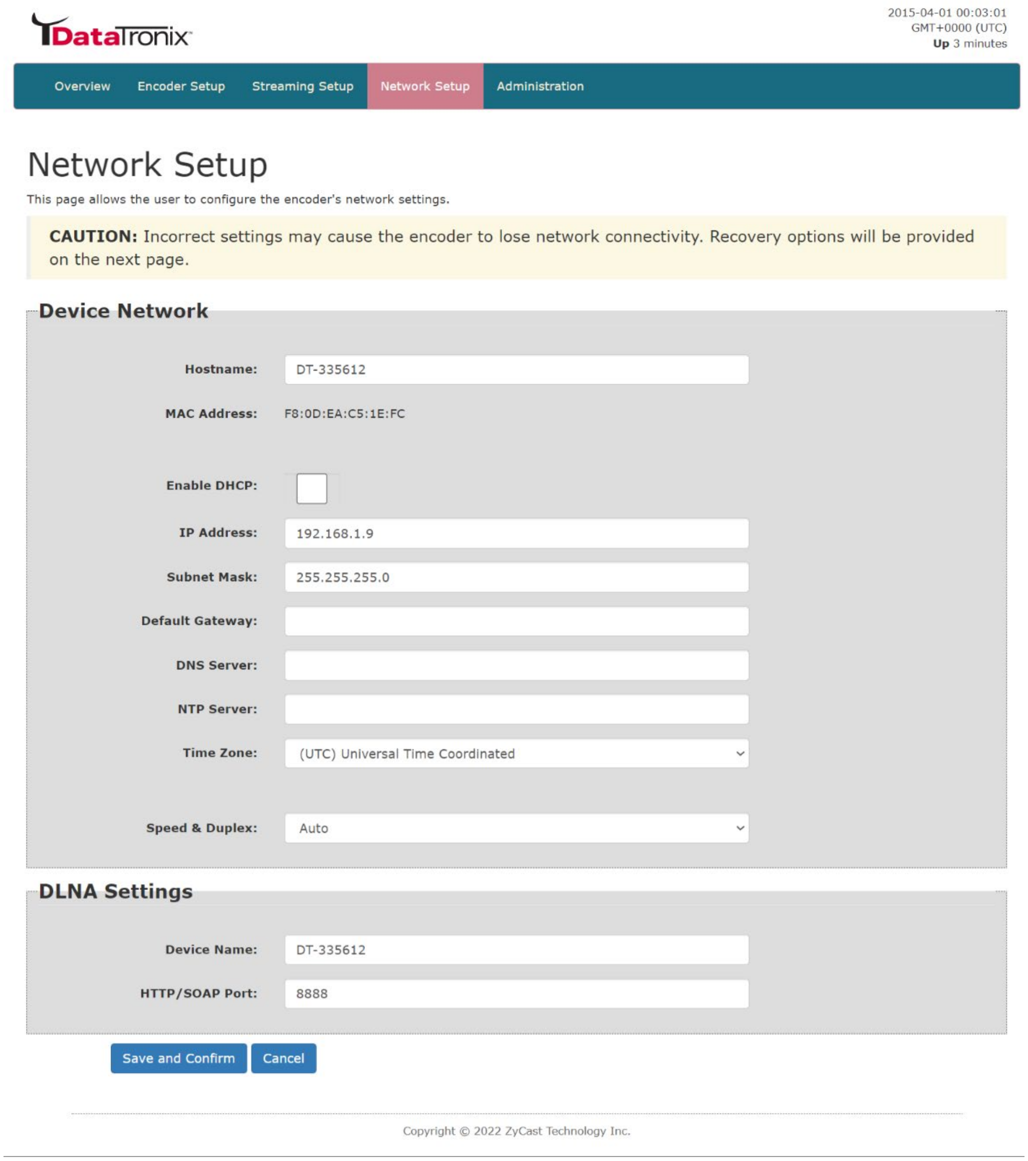
Media Player:

The DT-HDIPSS can play Content stored on a USB Drive while using RTSP Streaming protocol. See **Specifications** of file formats supported listed on page 5 (USB Media Player).

Media Player Via USB Port
Attach USB drive with supported file formats to the DT-HDIPSS to USB port on rear of device.
Use **"rtsp://device_IP_Address/<filename>"** format for USB Media Player.
Example: ***"rtsp://218.161.34.88:910/t.ts"***

*******SAVE AND CONFIRM ALL CHANGES MADE ON THE STREAMING SETUP PAGE***

Network Configuration


DataTronix
Overview
Encoder Setup
Streaming Setup
Network Setup
Administration
Save and Confirm
Cancel

2015-04-01 00:03:01
GMT+0000 (UTC)
Up 3 minutes

Network Setup

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

CAUTION: Incorrect settings may cause the encoder to lose network connectivity. Recovery options will be provided on the next page.

Device Network

Hostname: DT-335612
MAC Address: F8:0D:EA:C5:1E:FC
Enable DHCP: ☐
IP Address: 192.168.1.9
Subnet Mask: 255.255.255.0
Default Gateway:
DNS Server:
NTP Server:
Time Zone: (UTC) Universal Time Coordinated
Speed & Duplex: Auto

DLNA Settings

Device Name: DT-335612
HTTP/SOAP Port: 8888

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Device Network

Host Name

User definable. If required enter a new Host Name.

Setting a Static IP

To set a Static IP**-** **Uncheck** *' Enable DHCP'.*

Enter IP Address, Subnet Mask, Default Gateway, and DNS Server.

Default: DHCP Enabled.

NTP Server

To set NTP Server (if required)

Time Zone

Select required Time Zone (if required)

Speed & Duplex

Select using the drop-down tool the required Speed/Duplex parameter (if required).

DLNA Settings

DLNA settings allow users to stream DataTronix Streamers directly to Smartv's that are DLNA Compliant from the network.

Device Name

User Definable Name which will be displayed on Welcome Page.

Program Name

User Definable which will be displayed on Welcome Page.

HTTP/SOAP PORT

Modify SOAP Port (if required).

Note: SOAP Port is used as part of the unit's IP address when entering into a browser

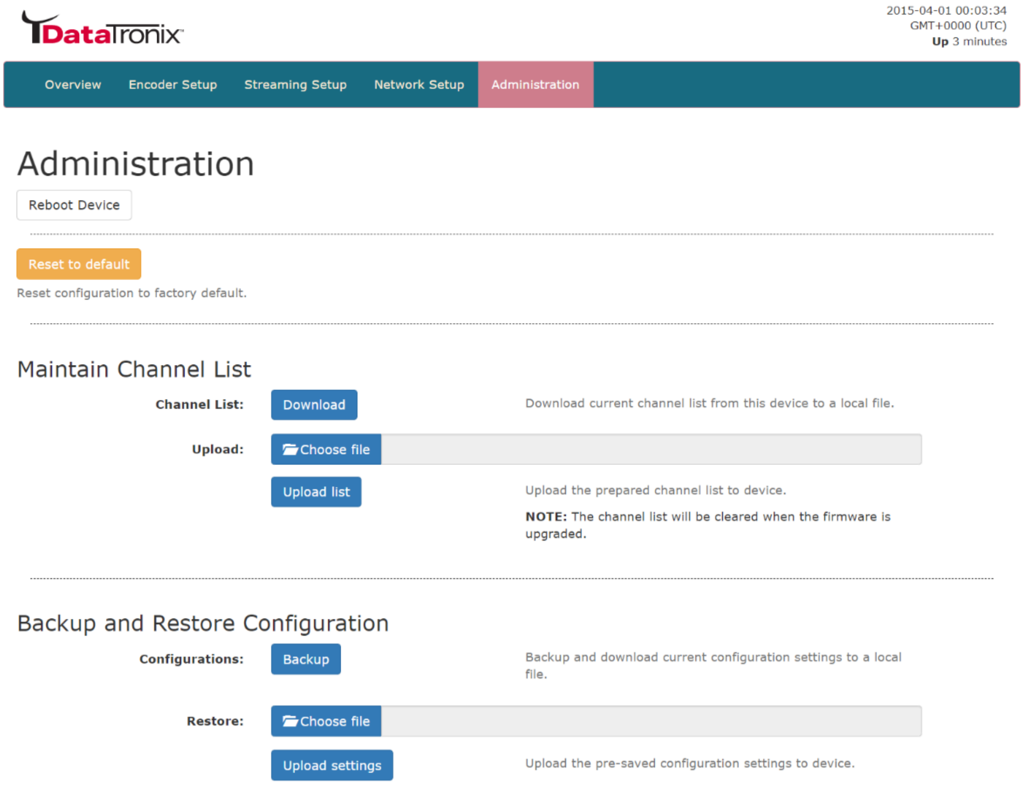
Example: IP_Address_of_Unit:SOAP_PORT or 169.254.200.128:8888

User **MUST** enter PORT ID as part of the IP address to Open GUI of device.

Default SOAP Port: 8888

****** SAVE AND CONFIRM ALL CHANGES MADE ON THE NETWORK SETUP PAGE***

Administration


Overview
Encoder Setup
Streaming Setup
Network Setup
Administration
Reboot Device
Reset to default
Download
Choose file
Upload list
Backup
Choose file
Upload settings

2015-04-01 00:03:34
GMT+0000 (UTC)
Up 3 minutes

Administration

Reset configuration to factory default.

Maintain Channel List

Channel List: Download current channel list from this device to a local file.

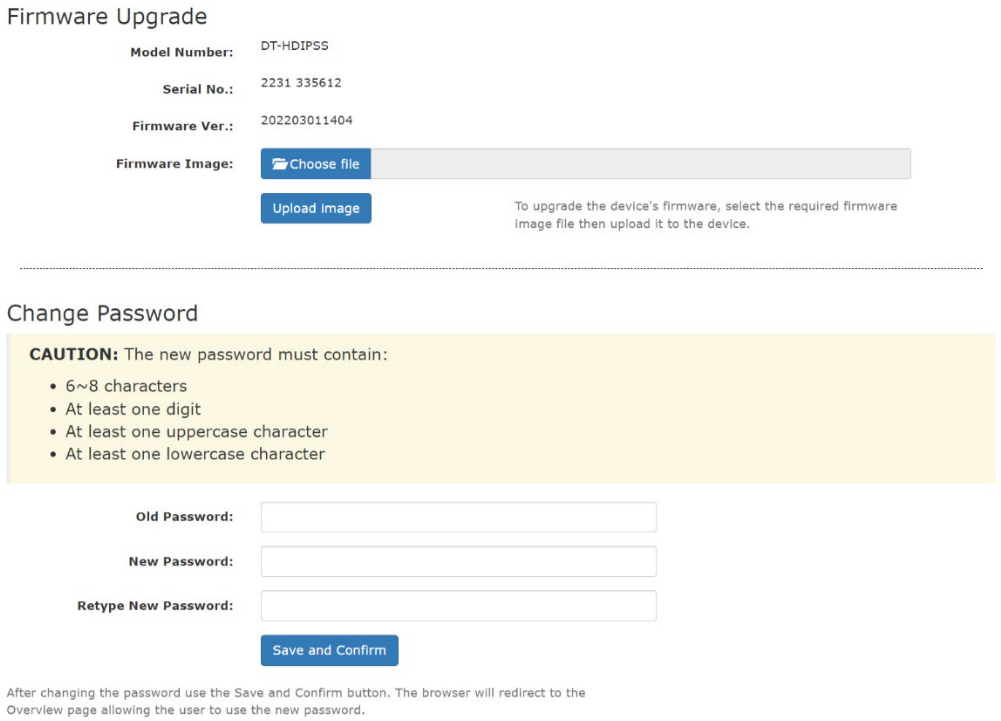
Upload: Upload the prepared channel list to device.

NOTE: The channel list will be cleared when the firmware is upgraded.

Backup and Restore Configuration

Configurations: Backup and download current configuration settings to a local file.

Restore: Upload the pre-saved configuration settings to device.



Firmware Upgrade

Model Number: DT-HDIPSS

Serial No.: 2231 335612

Firmware Ver.: 202203011404

Firmware Image:

To upgrade the device's firmware, select the required firmware image file then upload it to the device.

Change Password

CAUTION: The new password must contain:

- 6~8 characters
- At least one digit
- At least one uppercase character
- At least one lowercase character

Old Password:

New Password:

Retype New Password:

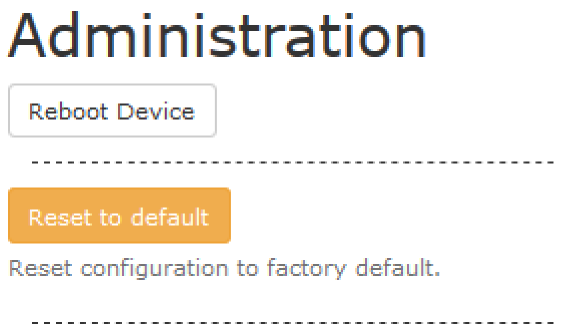
After changing the password use the Save and Confirm button. The browser will redirect to the Overview page allowing the user to use the new password.

Reboot Device

Click the 'Reboot Device ' button to reboot the device from within the GUI.

Note: The Streamer can be rebooted using pressing the 'Reboot' button on the front of the device.

All unsaved changes will be lost.



Administration

Reset configuration to factory default.

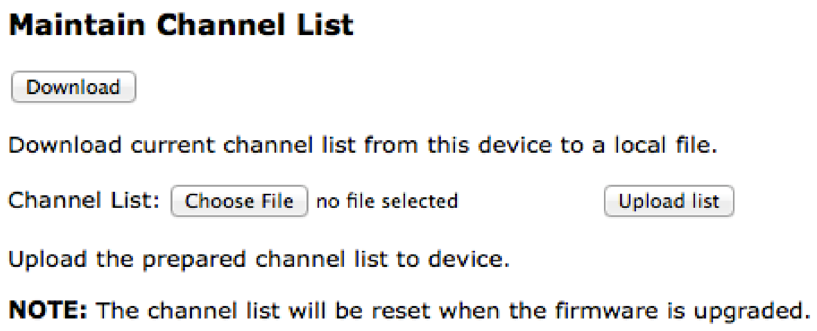
Reset to Default

Click the 'Reset to Default' button to disregard any parameter changes made to the device.

Note: Device settings will revert to factory default settings.

Maintain Channel List

If using a compatible set-top-box use the Maintain Channel List functions to import and set the Channel List.



Download current channel list from this device to a local file.

Upload the prepared channel list to device.

NOTE: The channel list will be reset when the firmware is upgraded.

Backup and Restore Configuration

Saving your configuration files

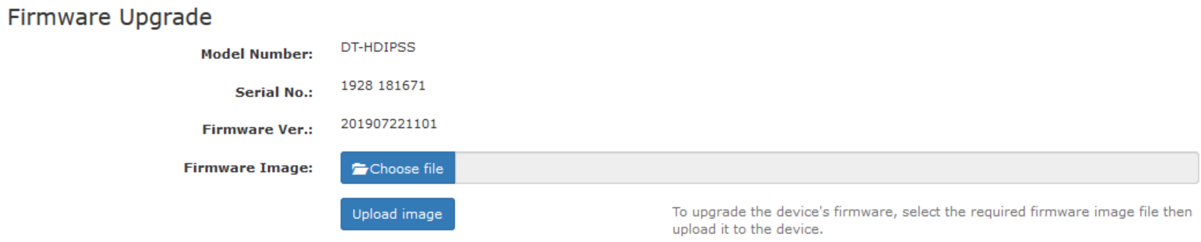
We highly recommend you save your encoder configuration files. Simply **Click** the **"Backup"** button and the config files will be saved to you computer.

To upload a previously backed up configuration file- simply click **"Choose File"** then locate the file you want to upload. Click "**Upload Settings**" to install the configuration files.

This function is helpful to the installer when installing a large number of encoders in a single system.

A "**config.cfg"** file will be created. Locate the file My Computer> C Directory > Documents and Settings> User>My Documents>Downloads>configs.cfg.

Firmware Upgrade



Firmware Upgrade

Model Number: DT-HDIPSS

Serial No.: 1928 181671

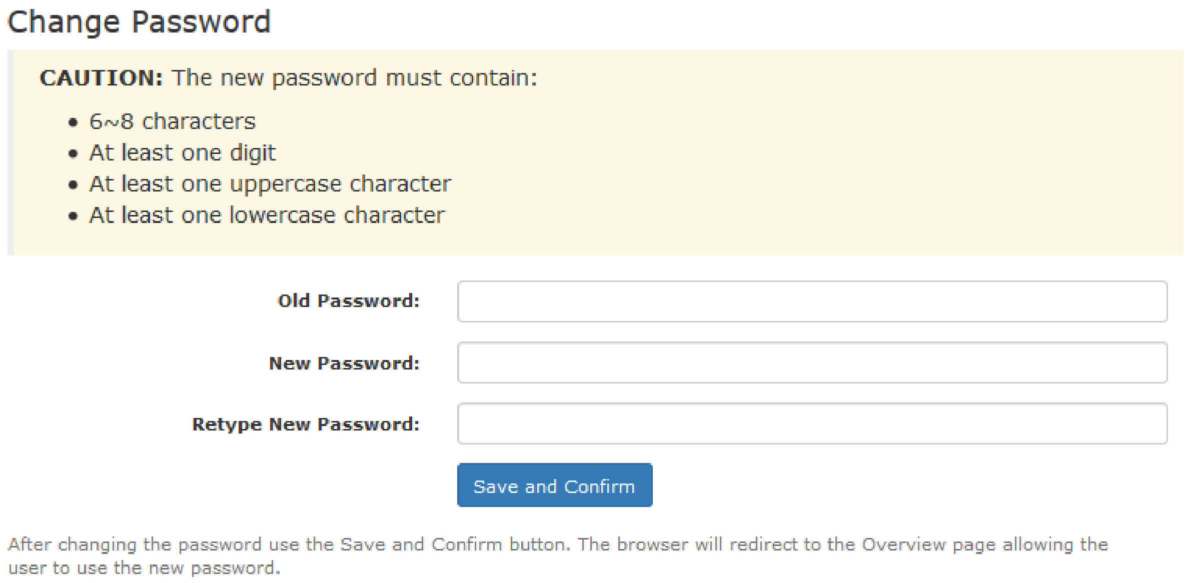
Firmware Ver.: 201907221101

Firmware Image:

To upgrade the device's firmware, select the required firmware image file then upload it to the device.

Use the Firmware Upgrade tools to locate '**Choose File**' and '**Upload Image'**

Change Password



Change Password

CAUTION: The new password must contain:

- 6~8 characters
- At least one digit
- At least one uppercase character
- At least one lowercase character

Old Password:

New Password:

Retype New Password:

After changing the password use the Save and Confirm button. The browser will redirect to the Overview page allowing the user to use the new password.

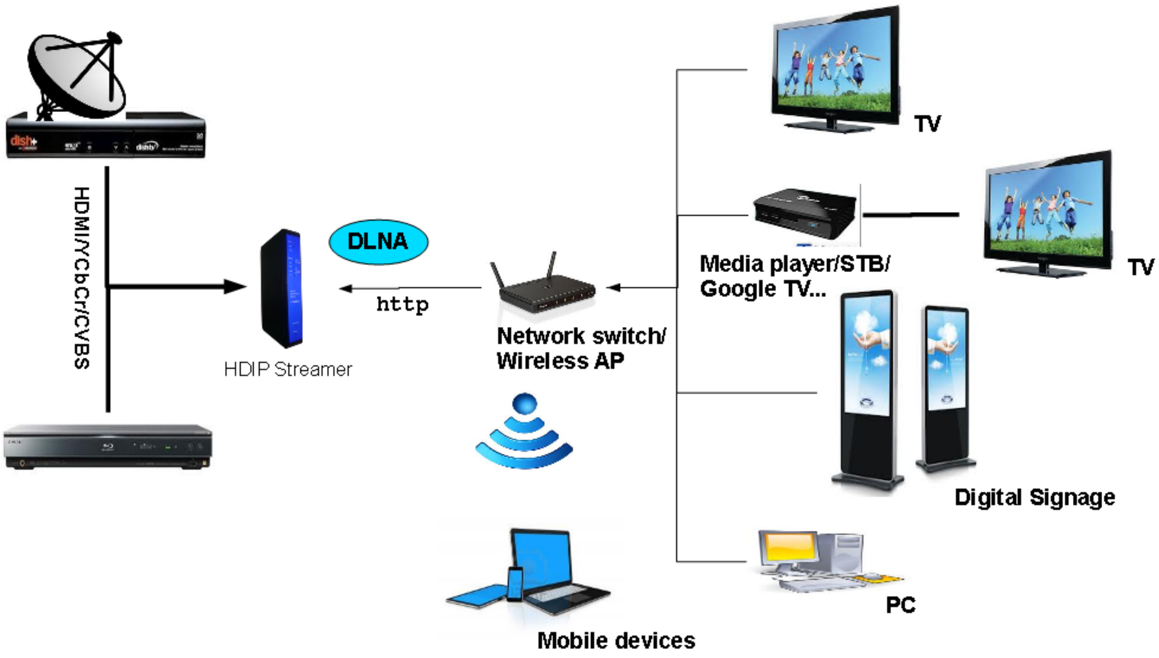
Remember to **Click** *'Save and Confirm*' button to save new password.

Streaming Methods Cases

Application Note:

If using VLC player, DataTronix recommends installing version 2.0.8 or newer version. Earlier versions of VLC may not be compatible.

Case 1: DLNA Streaming


HDMI/YCbCr/CVBS
DLNA
http
HDIP Streamer
Network switch/
Wireless AP
TV
Media player/STB/
Google TV...
TV
Digital Signage
PC
Mobile devices

Ex. VLC media player
http://@169.254.5.57:8888/VideoInput/play.ts

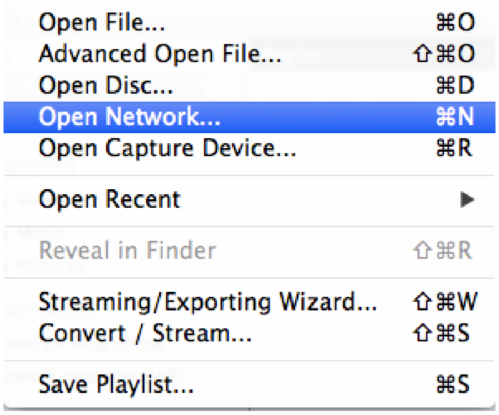
Streaming Setup Example:

Step 1: Enable HTTP (DLNA) Streaming

Step 2: ***Save and Confirm ***

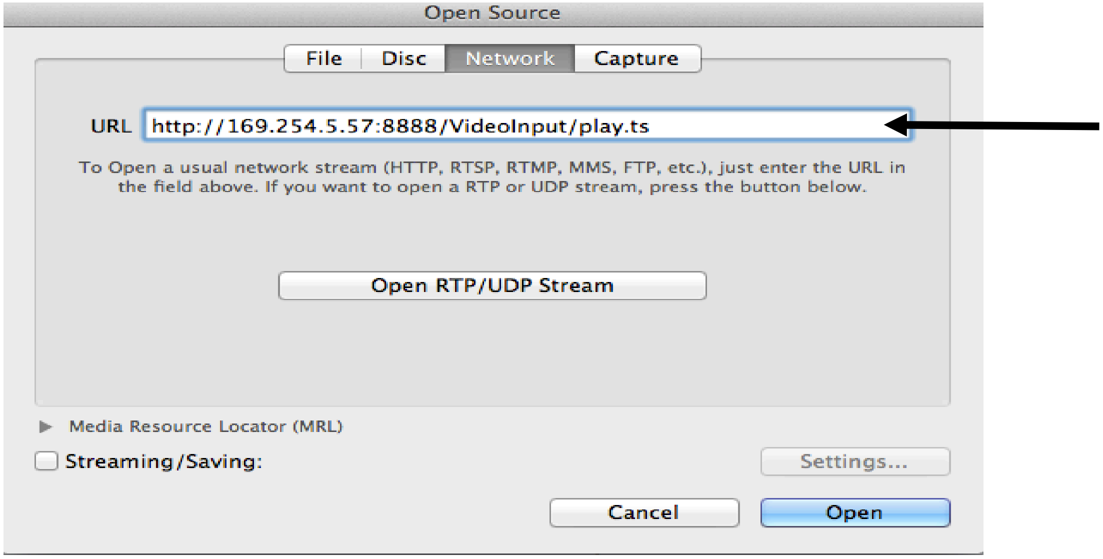
Step 3: Launch *VLC Media Player*

Step 4: File → Open Network


Open File... ⌘O
Advanced Open File... ⇧⌘O
Open Disc... ⌘D
Open Network... ⌘N
Open Capture Device... ⌘R
Open Recent ▶
Reveal in Finder ⇧⌘R
Streaming/Exporting Wizard... ⇧⌘W
Convert / Stream... ⇧⌘S
Save Playlist... ⌘S

Step 5: Enter IP Address as shown

Format: http://ip_address_of_unit:SoapPort/VideoInput/play.ts

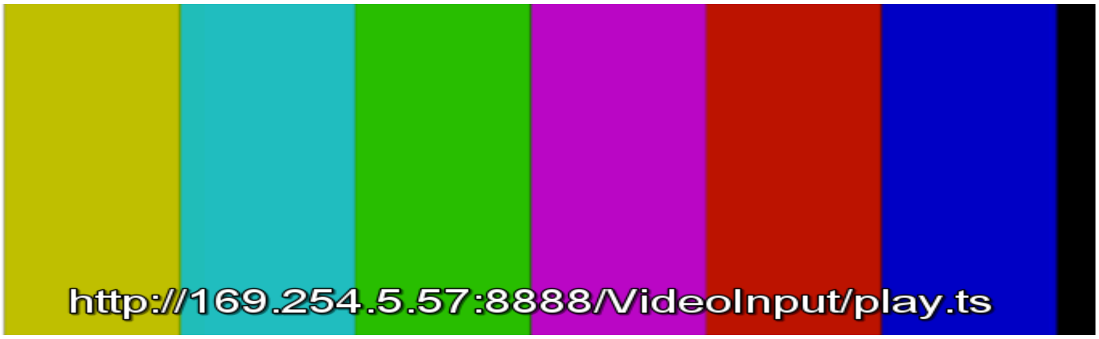

Open Source
File
Disc
Network
Capture
Open RTP/UDP Stream
▶ Media Resource Locator (MRL)
Settings...
Cancel
Open

URL http://169.254.5.57:8888/VideoInput/play.ts

To Open a usual network stream (HTTP, RTSP, RTMP, MMS, FTP, etc.), just enter the URL in the field above. If you want to open a RTP or UDP stream, press the button below.

☐ Streaming/Saving:

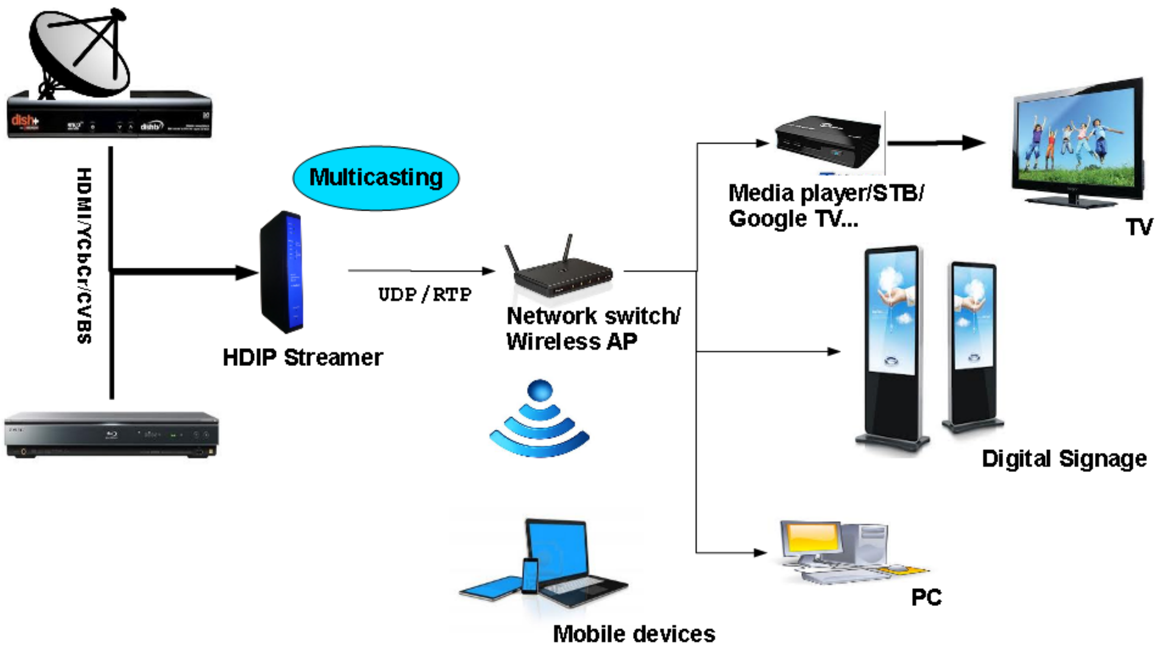
Step 6: Click Open / Play



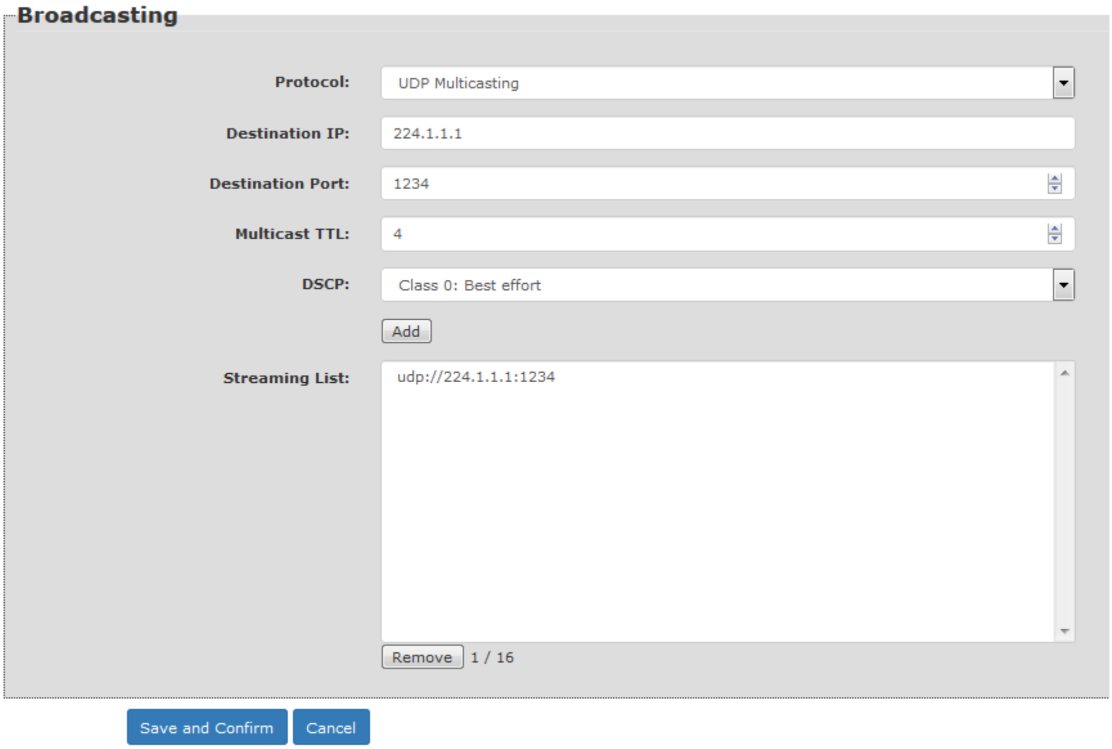
http://169.254.5.57:8888/VideoInput/play.ts

Case 2: UDP/RTP Multicasting

Streaming Setup Example:


HDMI/YCbCr/CVBS
Multicasting
UDP/RTP
HDIP Streamer
Network switch/
Wireless AP
Media player/STB/
Google TV...
TV
Digital Signage
PC
Mobile devices

Step 1: Select UDP Multicasting Protocol



Broadcasting

Protocol: UDP Multicasting

Destination IP: 224.1.1.1

Destination Port: 1234

Multicast TTL: 4

DSCP: Class 0: Best effort

Streaming List: udp://224.1.1.1:1234

1 / 16

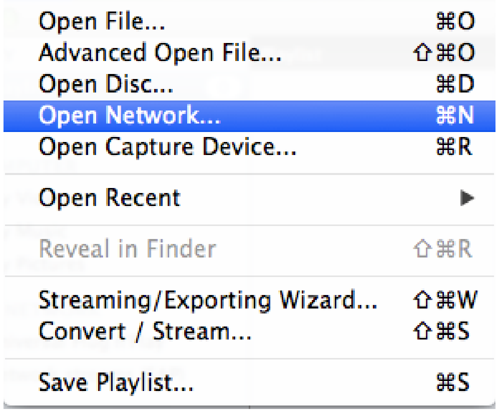
Add
Remove
Save and Confirm
Cancel

Step 2: Enter Group IP MulticastAddress

Step 3: Enter Multicast Port

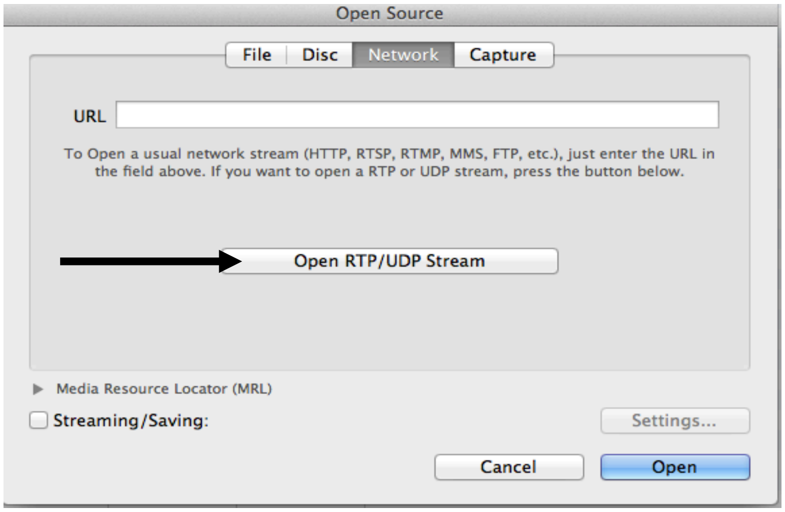
Step 4: ***Save and Confirm ***

Step 5: Launch *VLC Media*


Open File... ⌘O
Advanced Open File... ⇧⌘O
Open Disc... ⌘D
Open Network... ⌘N
Open Capture Device... ⌘R
Open Recent ▶
Reveal in Finder ⇧⌘R
Streaming/Exporting Wizard... ⇧⌘W
Convert / Stream... ⇧⌘S
Save Playlist... ⌘S

Step 6: File → Open Network

Step 7: Click on 'Open RTP/UDP Stream

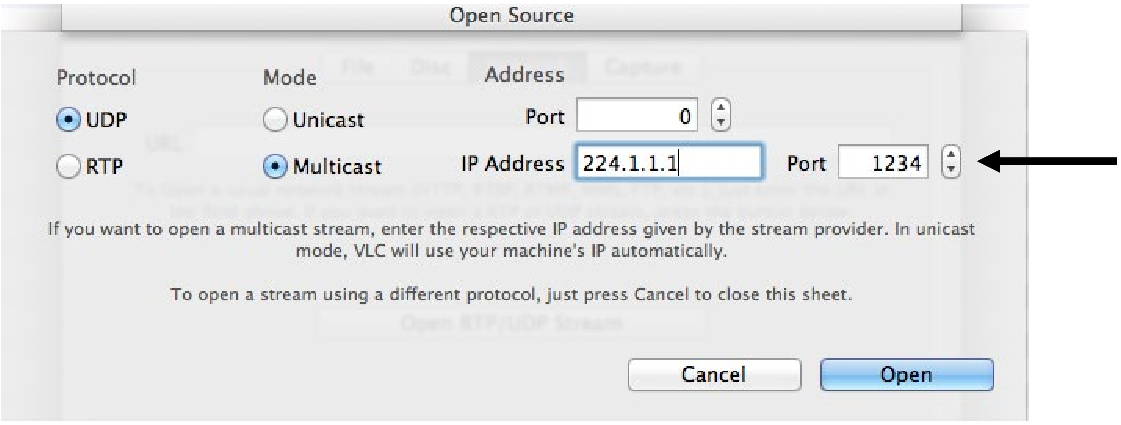

Open Source
File
Disc
Network
Capture
Open RTP/UDP Stream
Media Resource Locator (MRL)
Settings...
Cancel
Open

URL

To Open a usual network stream (HTTP, RTSP, RTMP, MMS, FTP, etc.), just enter the URL in the field above. If you want to open a RTP or UDP stream, press the button below.

☐ Streaming/Saving:

Step 8: Enter Multicast IP and Port


Open Source
Cancel
Open

Protocol: ● UDP ○ RTP

Mode: ○ Unicast ● Multicast

Address

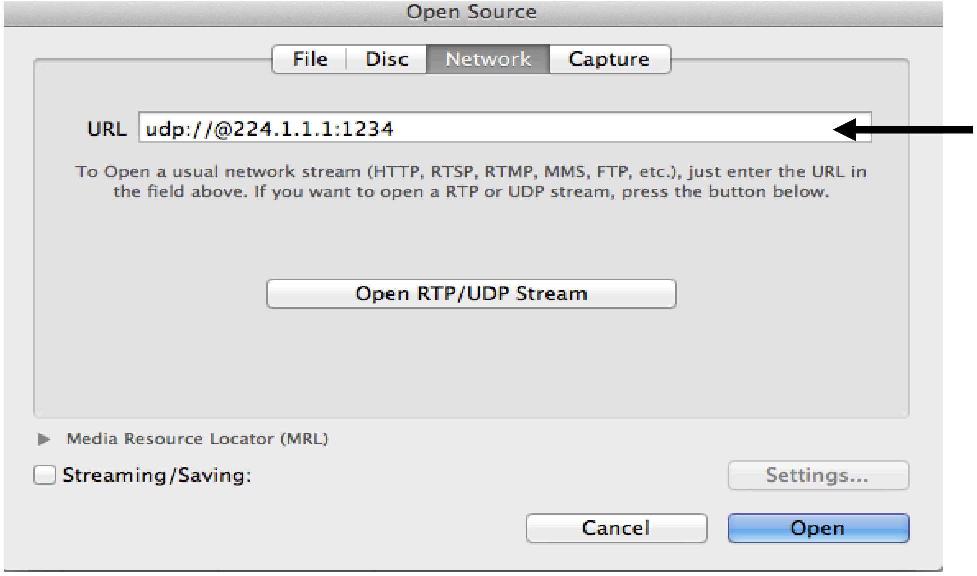
Port: 0

IP Address: 224.1.1.1 Port: 1234

If you want to open a multicast stream, enter the respective IP address given by the stream provider. In unicast mode, VLC will use your machine's IP automatically.

To open a stream using a different protocol, just press Cancel to close this sheet.

or enter Group Multicast as shown below



Open Source
File
Disc
Network
Capture

URL udp://@224.1.1.1:1234

To Open a usual network stream (HTTP, RTSP, RTMP, MMS, FTP, etc.), just enter the URL in the field above. If you want to open a RTP or UDP stream, press the button below.

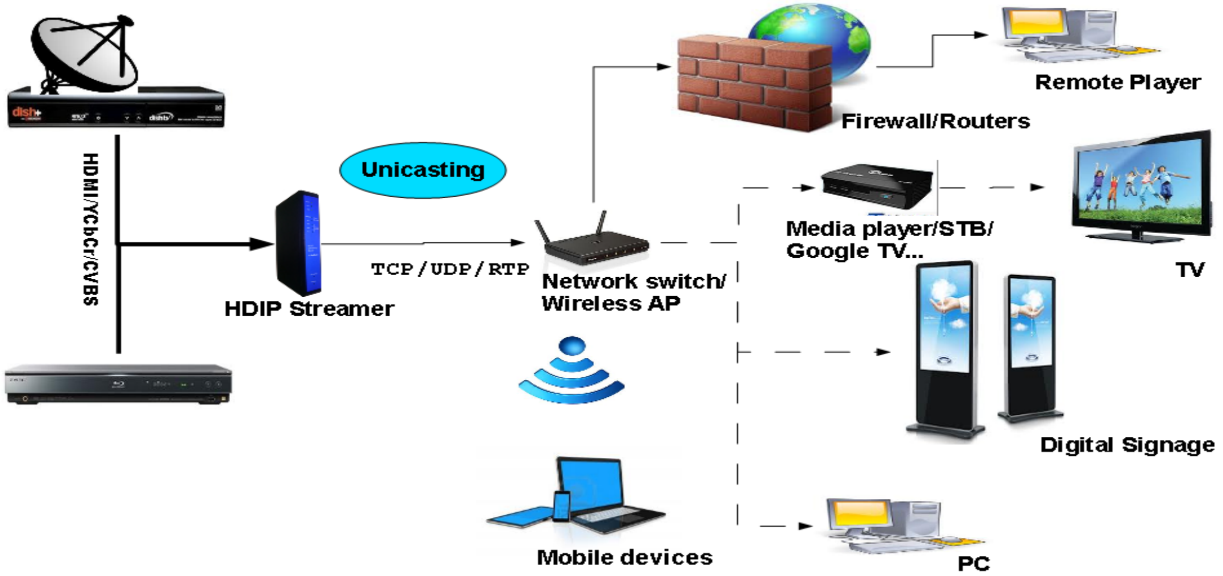
Open RTP/UDP Stream
▶ Media Resource Locator (MRL)
☐ Streaming/Saving:
Settings...
Cancel
Open

Example for RTP Stream: ***rtp://@224.1.1.1:1234***

Step 9: Click Open to view stream.

Case 3: TCP/UDP/RTP Unicasting

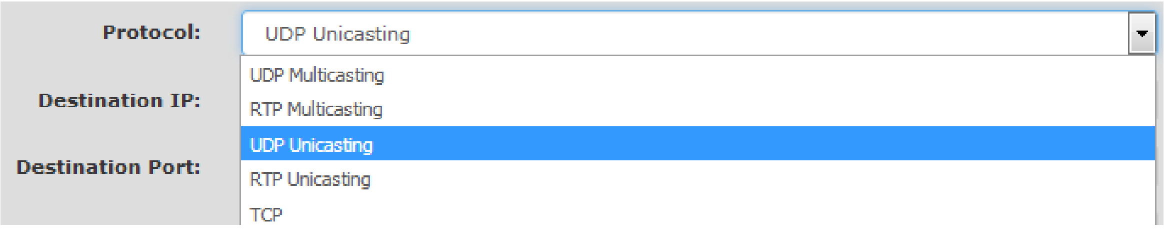
Network Setup Example:


HDMI/YCbCr/CVBS
Unicasting
HDIP Streamer
TCP/UDP/RTP
Network switch/ Wireless AP
Firewall/Routers
Remote Player
Media player/STB/ Google TV...
TV
Digital Signage
Mobile devices
PC

ex. VLC media player
udp://@:1234

ex. VLC media player
udp://@:1234

Step 1: Select Protocol: UDP/RTP or TCP using the drop-down tool

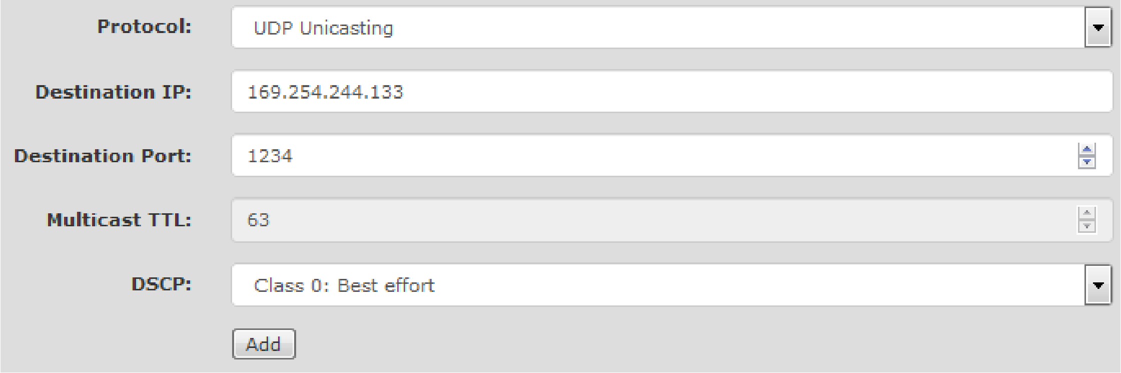


Protocol: UDP Unicasting

Destination IP:
Destination Port:
UDP Multicasting
RTP Multicasting
UDP Unicasting
RTP Unicasting
TCP

Step 2: Enter Destination IP

Step 3: Enter Destination Port



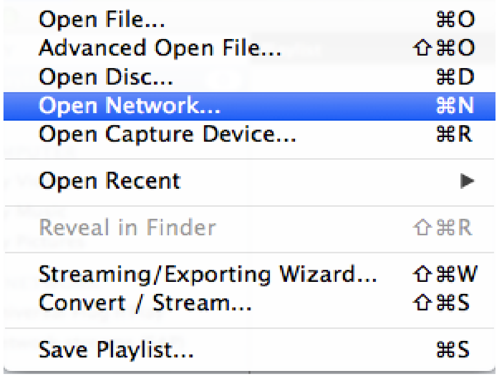
Protocol: UDP Unicasting
Destination IP: 169.254.244.133
Destination Port: 1234
Multicast TTL: 63
DSCP: Class 0: Best effort

Step 4: Click 'Add'

Image above shows Destination IP/Port listed in the Casting List window.

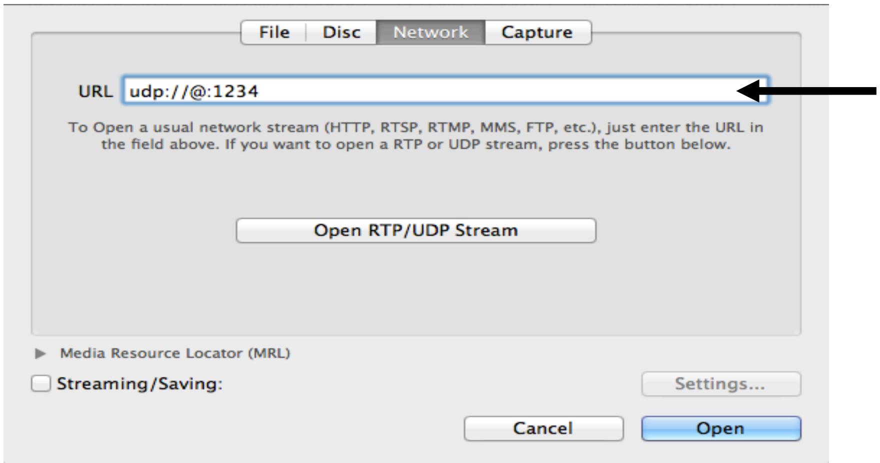
Note: Click on an IP Address then '*Remove*' to remove a Destination IP addresses.

Step 5: ***Save and Confirm ***
Step 6: Launch *VLC Media Player*
Step 7: File → Open Network


Open File... ⌘O
Advanced Open File... ⇧⌘O
Open Disc... ⌘D
Open Network... ⌘N
Open Capture Device... ⌘R
Open Recent ▶
Reveal in Finder ⇧⌘R
Streaming/Exporting Wizard... ⇧⌘W
Convert / Stream... ⇧⌘S
Save Playlist... ⌘S

Step 8: Enter Destination Port as shown.
Example: Destination IP address as shown in step 4 :169.254.244.133.

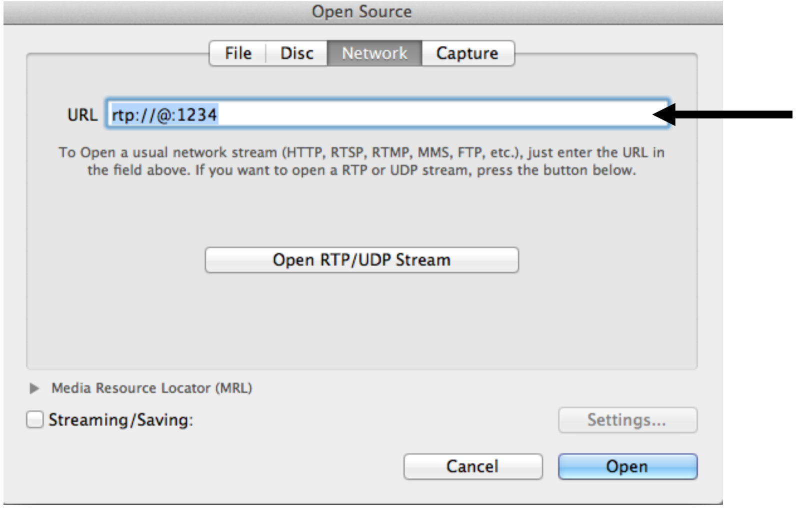
Destination Port: 1234


File
Disc
Network
Capture
Open RTP/UDP Stream
▶ Media Resource Locator (MRL)
☐ Streaming/Saving:
Settings...
Cancel
Open

URL udp://@:1234

To Open a usual network stream (HTTP, RTSP, RTMP, MMS, FTP, etc.), just enter the URL in the field above. If you want to open a RTP or UDP stream, press the button below.

RTP Example:


Open Source
File
Disc
Network
Capture
Open RTP/UDP Stream
▶ Media Resource Locator (MRL)
☐ Streaming/Saving:
Settings...
Cancel
Open

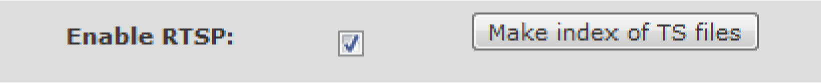
URL rtp://@:1234

To Open a usual network stream (HTTP, RTSP, RTMP, MMS, FTP, etc.), just enter the URL in the field above. If you want to open a RTP or UDP stream, press the button below.

Step 9: Click Open to stream.

Case 4: RSTP Unicasting/Multicasting/Media Player

RTSP Unicasting



Enable RTSP: ☑

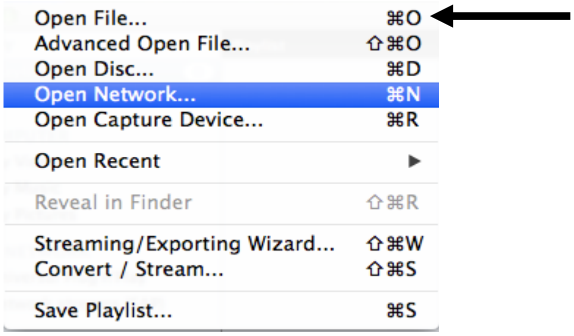
Make index of TS files

Step 1: Enable RTSP by checking checkbox to stream using RTSP Unicasting, Multicasting, or stream stored content from USB (Using VLC media player as example).

Step 2: *****Save and Confirm *****

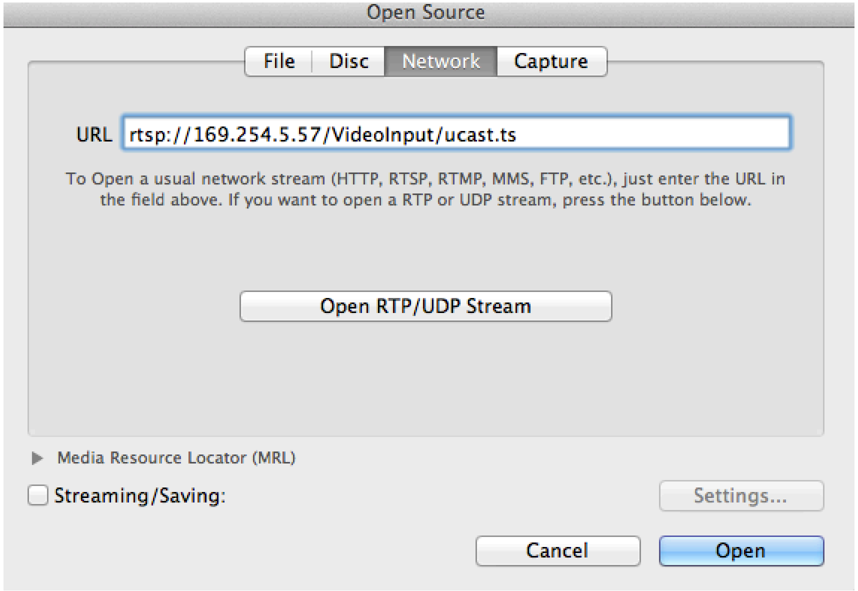
Step 3: Open VLC media player

Step 4: Select Media ==> Open Network.....



Open File... ⌘O
Advanced Open File... ⇧⌘O
Open Disc... ⌘D
Open Network... ⌘N
Open Capture Device... ⌘R
Open Recent ▶
Reveal in Finder ⇧⌘R
Streaming/Exporting Wizard... ⇧⌘W
Convert / Stream... ⇧⌘S
Save Playlist... ⌘S

Step 5: Enter rtsp://169.254.5.57/VideoInput/ucast.ts


Open Source
File
Disc
Network
Capture

URL rtsp://169.254.5.57/VideoInput/ucast.ts

To Open a usual network stream (HTTP, RTSP, RTMP, MMS, FTP, etc.), just enter the URL in the field above. If you want to open a RTP or UDP stream, press the button below.

Open RTP/UDP Stream
▶ Media Resource Locator (MRL)
☐ Streaming/Saving:
Settings...
Cancel
Open

Step 6: Click Open to stream.

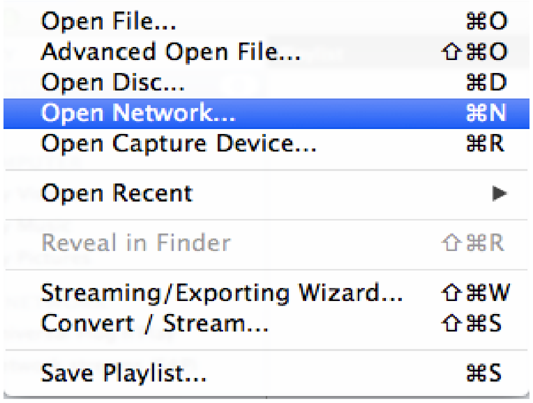
RTSP Active RTP Multicasting

Step 1: Enable RTSP by checking checkbox to stream using RTSP Unicasting, Multicasting, or stream stored content from USB (Using VLC media player as example).

Step 2: ***Save and Confirm ***

Step 3: Open VLC media player

Step 4: Select Media ==> Open Network.....


Open File... ⌘O
Advanced Open File... ⇧⌘O
Open Disc... ⌘D
Open Network... ⌘N
Open Capture Device... ⌘R
Open Recent ▶
Reveal in Finder ⇧⌘R
Streaming/Exporting Wizard... ⇧⌘W
Convert / Stream... ⇧⌘S
Save Playlist... ⌘S

Step 5: Enter rtsp://169.254.5.57/VideoInput/mcast.ts

Step 6: Click Open to stream.

Media Player / Streaming via files USB

Step 1: Enable RTSP by checking checkbox to stream using RTSP Unicasting, Multicasting, or stream stored content from USB (Using VLC media player as example).

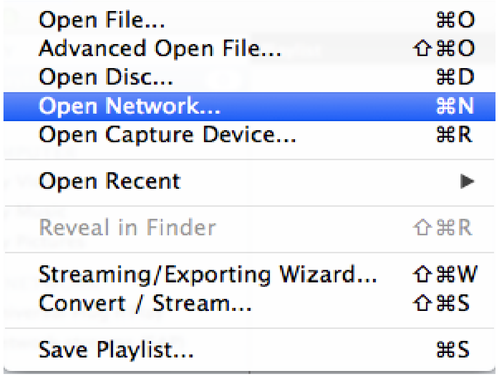
Step 2: ***Save and Confirm ***

Step 3: Prepare and place MPEG-2 TS files on USB drive with file name suffix ".ts"

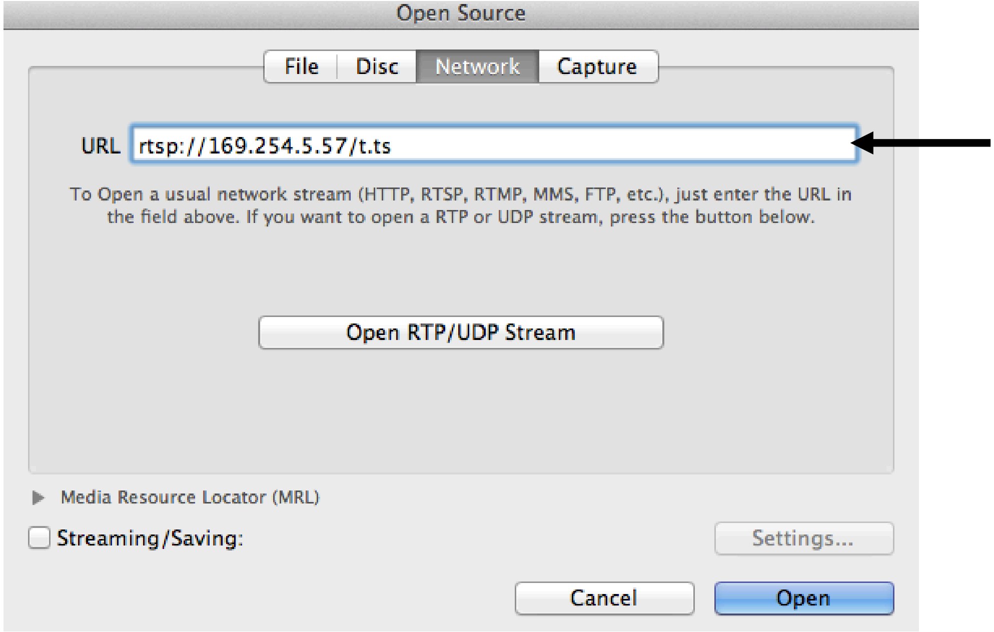
Step 4: Attach USB stick to DT-HDIPSS USB port.

Step 5: Open VLC media player

Step 6: Select Media ==> Open Network.....


Open File... ⌘O
Advanced Open File... ⇧⌘O
Open Disc... ⌘D
Open Network... ⌘N
Open Capture Device... ⌘R
Open Recent ▶
Reveal in Finder ⇧⌘R
Streaming/Exporting Wizard... ⇧⌘W
Convert / Stream... ⇧⌘S
Save Playlist... ⌘S

Step 7: Enter RTSP address/file name (example: “rtsp://169.254.5.57/t.ts”)

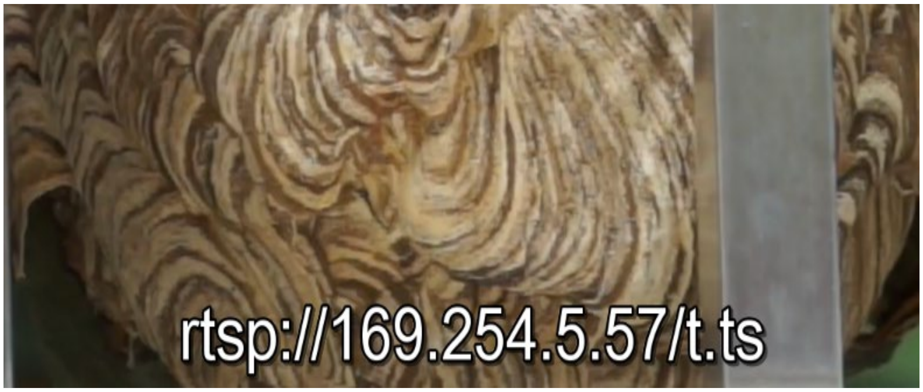

Open Source
File
Disc
Network
Capture

URL rtsp://169.254.5.57/t.ts

To Open a usual network stream (HTTP, RTSP, RTMP, MMS, FTP, etc.), just enter the URL in the field above. If you want to open a RTP or UDP stream, press the button below.

Open RTP/UDP Stream
▶ Media Resource Locator (MRL)
☐ Streaming/Saving:
Settings...
Cancel
Open

Step 8: Click Open to stream.


rtsp://169.254.5.57/t.ts

HDIP Streaming Server Notes

PRODUCT NOTES:

ITEM	VALUE
USER NAME / PASSWORD	
SERIAL NUMBER	
INSTALLATION DATE	
PURCHASE DATE	
DEVICE NAME	
FIRMWARE VERSION	
STREAMING METHOD	