

HDE · SDE · VDE · DPE · HDD

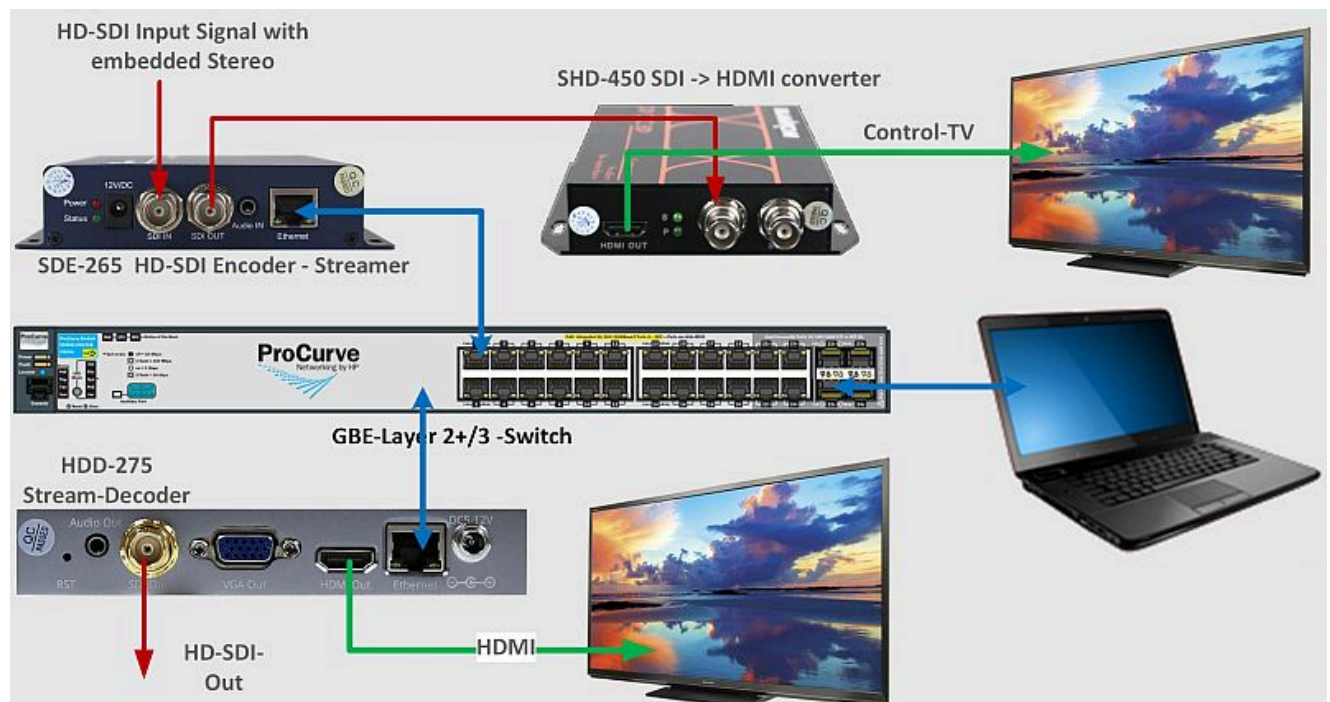
Quick Start Manual

Compact H.264/H.265 multiprotocol encoders and HDD IP decoders with the new web GUI – network, recording, encoding, streaming and decoder settings

IRENIS / BLANKOM · Quick Start Manual · Ralf Riedel, Director Technical Sales & Engineering, IRENIS GmbH

ENCODER-DECODER PAIR · EXAMPLE WITH SDI INPUT

Set-up scenario – devices can vary



ENCODERS

HDE-264 · ADE-264B · HDE-265L · SDE-265
VDE-265 · DPE-275 · HDE-275 · HDE-276

DECODERS

HDD-264 · HDD-275 / HDD-275H · HDD-276

Contents

PART 1 · PRODUCT FAMILY

1	The product family	2
---	--------------------	---

PART 2 · GETTING STARTED

2	First access to the web interface	5
3	Network settings	10
4	The Apply confirmation	13
5	Test picture and on-screen display (OSD)	15

PART 3 · RECORDING

6	Recording to NFS or SAMBA	18
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PART 4 · ENCODING

7	Input front ends	22
8	Encoding parameters	24
9	Preview functions	26
10	Encoder settings in practice	29

PART 5 · TRANSPORT STREAM AND AUDIO

11	TS and multicast settings	37
12	Audio	43

PART 6 · STREAMING PROTOCOLS

13	SRT listener and caller modes	47
14	HLS and RTMP	50
15	RTSP and HTTP streaming	50
16	ONVIF	51
17	Logging with Loki	52
18	Other settings	52

PART 7 · DECODERS

19	HDD decoders: output settings	55
20	HDD-276 decoder and transcoder	56

PART 8 · FIRMWARE 2.23

21	Firmware 2.23: new features	59
----	-----------------------------	----

ANNEX

22	Version history	67
----	-----------------	----

Quick Start Manual – HDE / SDE / VDE / DPE encoders and HDD decoders · Version 2.0

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Online: <https://www.irenis-blankom.com/product-category/blankom/30-ip-encoder-streamer/>

Encoders, decoders and firmware platforms

Compact multiprotocol encoders with HDMI, SDI, VGA or DisplayPort input and the matching HDD IP decoders, all with the new web GUI.

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In this part [The product family](#)

KEY POINTS

- The encoders differ only in their input front end; loop-out and EDID depend on the model.
- Up to four encoder engines per chip (two on some models): main stream plus up to three sub streams.
- Two hardware platforms, SS524 (HiSilicon) and S6L55M (Ambarella) – firmware files are platform-specific and must never be mixed up.

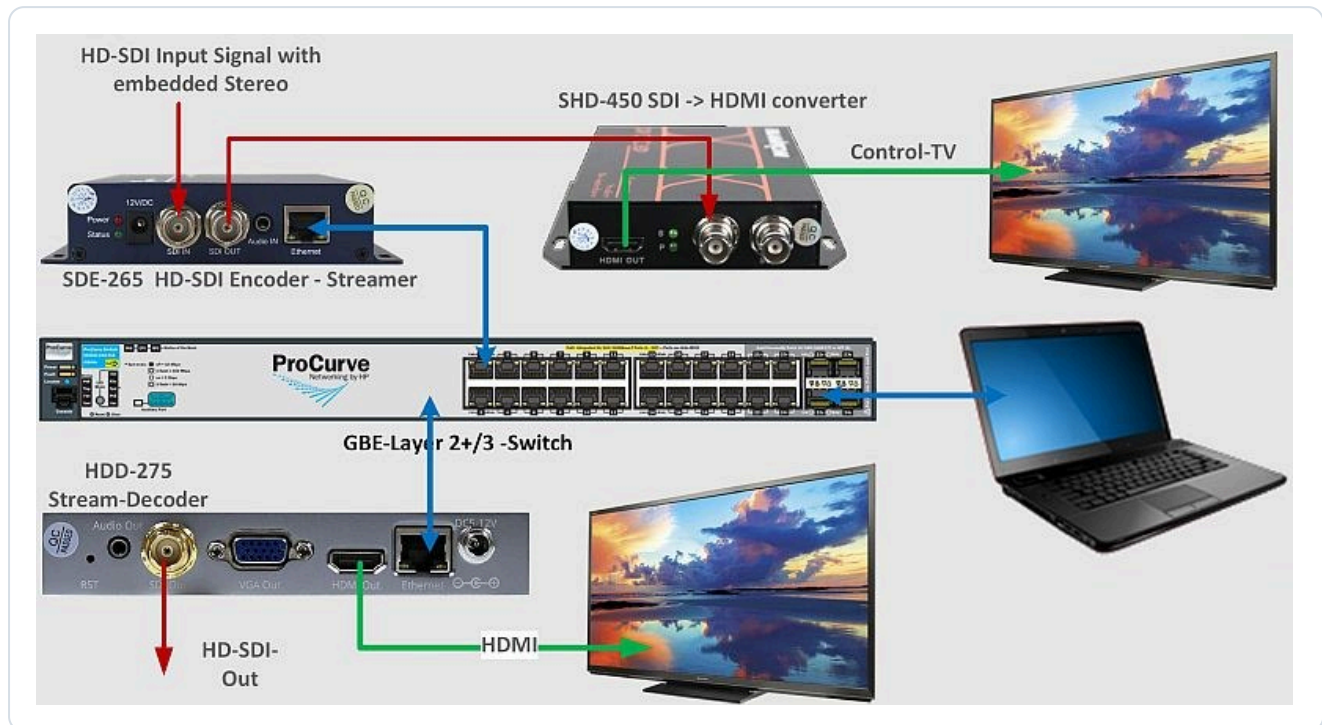
The product family

This Quick Start Manual covers the compact BLANKOM multiprotocol video encoders with the new web GUI and their partner decoders. The encoders differ only in their input front end:

MODEL	VIDEO INPUT	LOOP-OUT
HDE-264, HDE-265L, HDE-275, HDE-276	HDMI	HDE-265L, HDE-275 (current version) and HDE-276: HDMI
ADE-264B	HDMI + CVBS (PAL/NTSC)	—
SDE-265	3G-SDI	SDI
VDE-265	VGA	VGA + audio
DPE-275	DisplayPort	DisplayPort
DECODERS		
HDD-264	HD IP decoder with mosaic viewer	—
HDD-275	up to 4Kp30; unicast/multicast inputs; 4-way mosaic; HDMI, SDI, VGA and CVBS outputs	—
HDD-275H	up to 4Kp30; unicast/multicast inputs; 4-way mosaic; HDMI, VGA and CVBS outputs	—
HDD-276	4Kp60 IP decoder and transcoder	—

On models with a loop-out connector the input signal can be cascaded or used for monitoring. Only the HDMI encoders have an EDID setting in the web interface; the SDI, VGA and DisplayPort versions do not need one.

The example below shows a typical encoder–decoder pair with SDI input. Your set-up may use different devices.



We assume that you are familiar with basic IT network settings and with streaming protocols. More background is available in the tutorials on our website: www.blankom.de/tutorials.html (English) and www.blankom.de/anleitungen-deutsch.html (German).

Hardware and firmware versions

Different hardware and firmware combinations support different features and parameters. For example, the SS524 platform supports recording to NFS/SAMBA network folders, while S6L55M units with older firmware might not. Features marked with * in this manual depend on hardware and firmware.

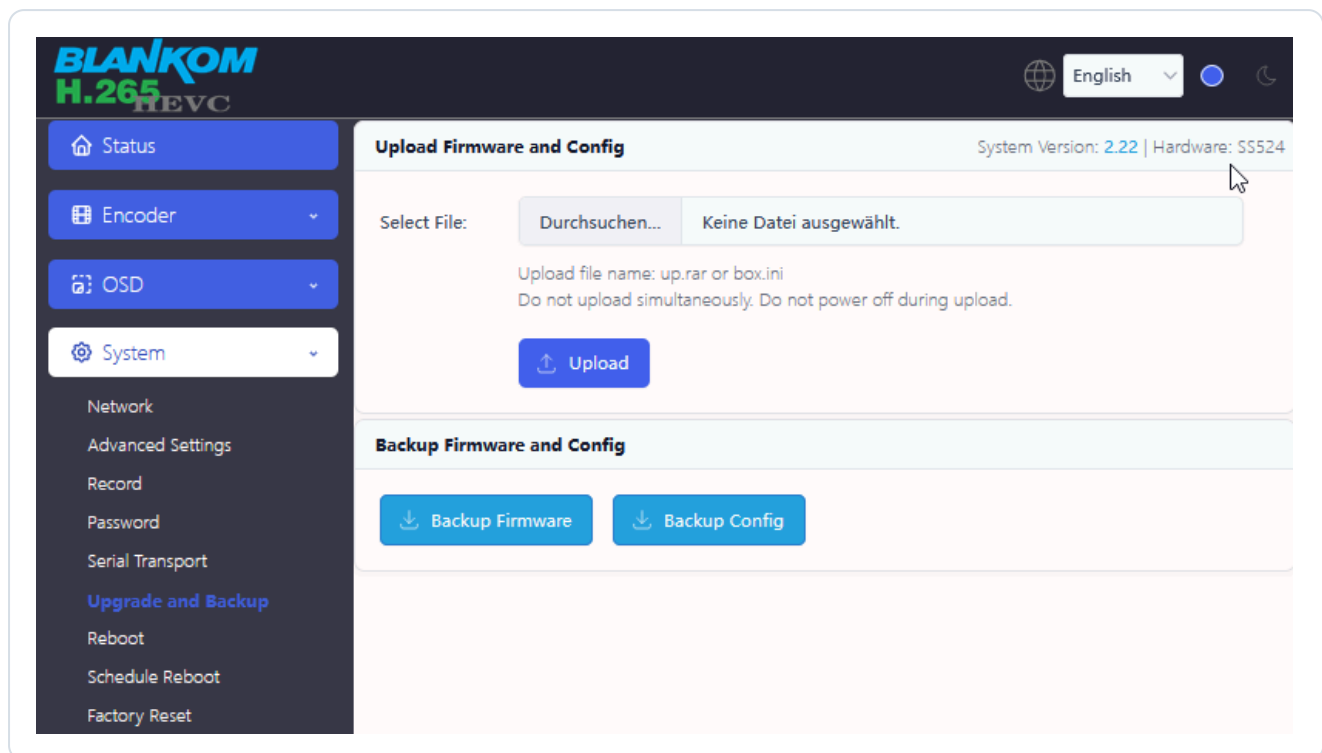
The encoders have up to four encoder engines in one chip (two on some models): one main stream and up to three sub streams. Please note the limitations:

- Only the main stream supports WebRTC and TRTC; when they are used, the sub streams are disabled.
- The main stream and the first sub stream encode at full resolution. The second and third sub streams encode one and two steps lower – for example, if the main and first sub stream are Full HD, the second and third deliver 720p. This depends on hardware and firmware; please check the datasheet of your model.

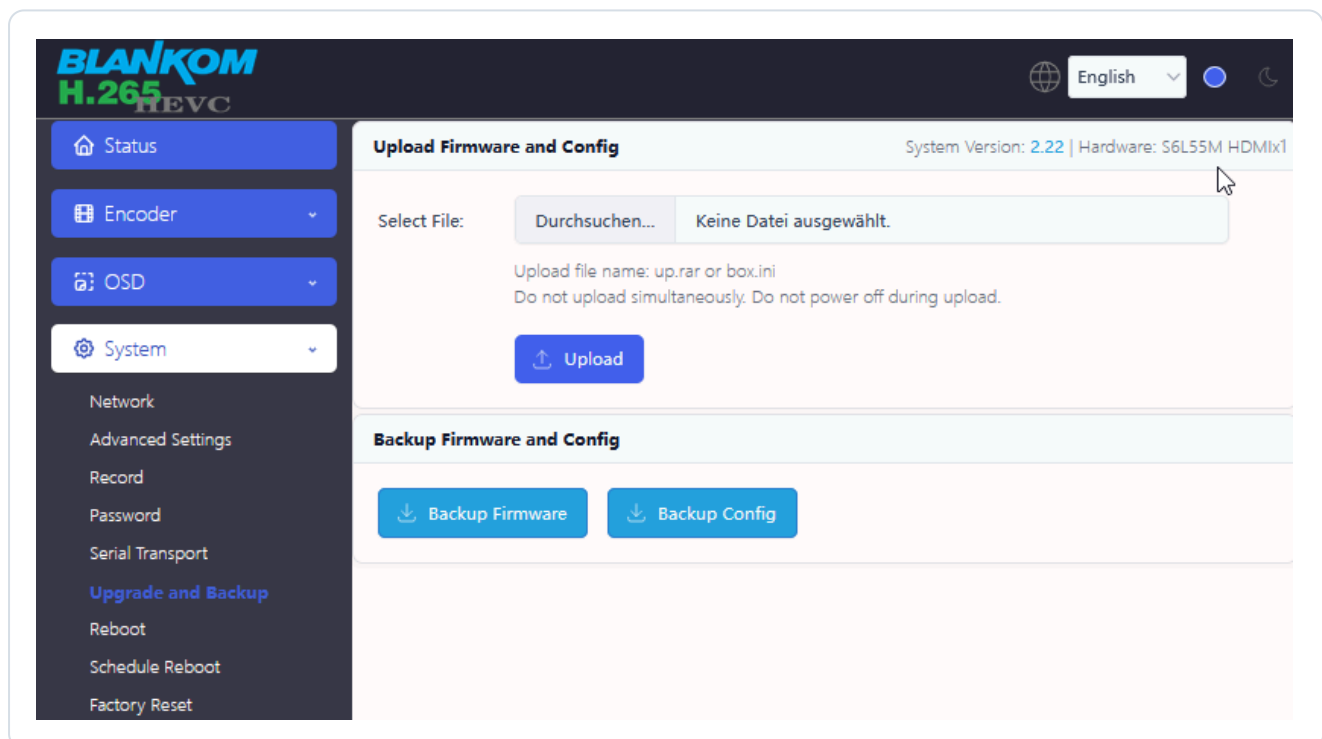
New features of the new web GUI

- Network: IPv6*, mDNS, HTTPS with your own certificate.
- Recording*: mounting of NFS or SAMBA network file systems for MP4/TS recording.
- Stream targets: WebRTC and TRTC, 3× RTMP(S) push*, multiple SRT streams in listener mode (no rendezvous mode).

Hardware and software versions have been harmonised. The hardware platform is shown in the system menu under **Upgrade and Backup**:



The firmware files are named after the chipset: **up_2.22_SS524.rar** for the SS524 platform (HiSilicon) and **up_2.22_S6L55M.rar** for the S6L55M platform (Ambarella). Most units delivered use the S6L55M platform.



NOTE

Never load firmware for the other platform onto a unit. Always check the platform shown under Upgrade and Backup before updating.

First access, network and OSD

Log in, set the network, understand the Apply message and keep the stream alive with an OSD clock.

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In this part [First access to the web interface](#) [Network settings](#) [The Apply confirmation](#)
[Test picture and on-screen display \(OSD\)](#)

KEY POINTS

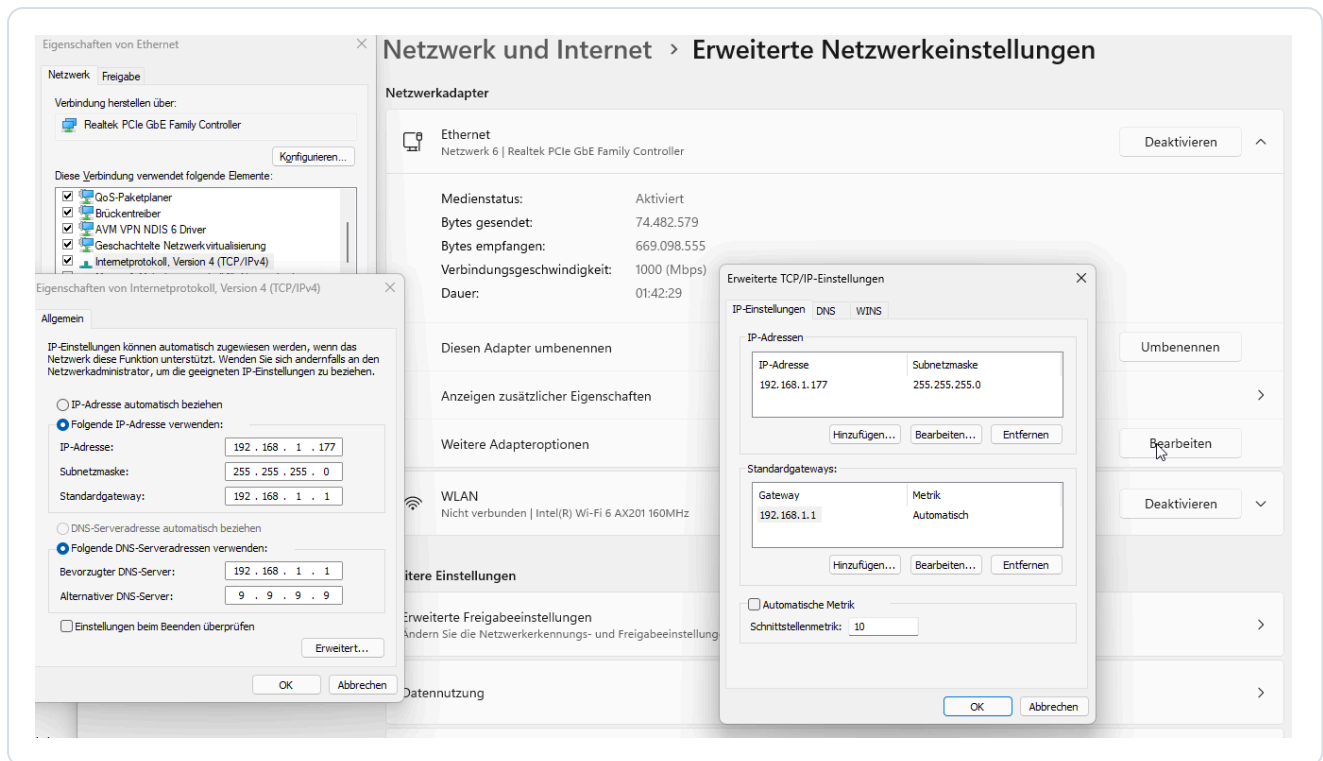
- Defaults: encoder 192.168.1.168, decoder 192.168.1.169, admin/admin.
- Reset: press the RST switch for at least 10–15 seconds until the LEDs go off.
- Use IGMP-capable switches for multicast and never use a multicast address twice.
- The Apply message usually means: restart the receiver, not the encoder.

First access to the web interface

Default addresses: encoder **192.168.1.168**, decoder **192.168.1.169**; user name and password **admin / admin**. You can change the password according to your security policy; the user name cannot be changed, because the internal Linux system needs it.

Set your PC to the same IP range as the units. For checking streams later, use only the wired network interface and disable others such as Wi-Fi; otherwise the computer may not know which interface should receive a stream – particularly multicast UDP/RTP.

If both interfaces stay on, set their metric values: a lower value has a higher priority. For example, change the Ethernet metric from automatic to 10 and set Wi-Fi to 100. In Windows 11, give your PC a manual IPv4 address, gateway, netmask, DNS and metric:



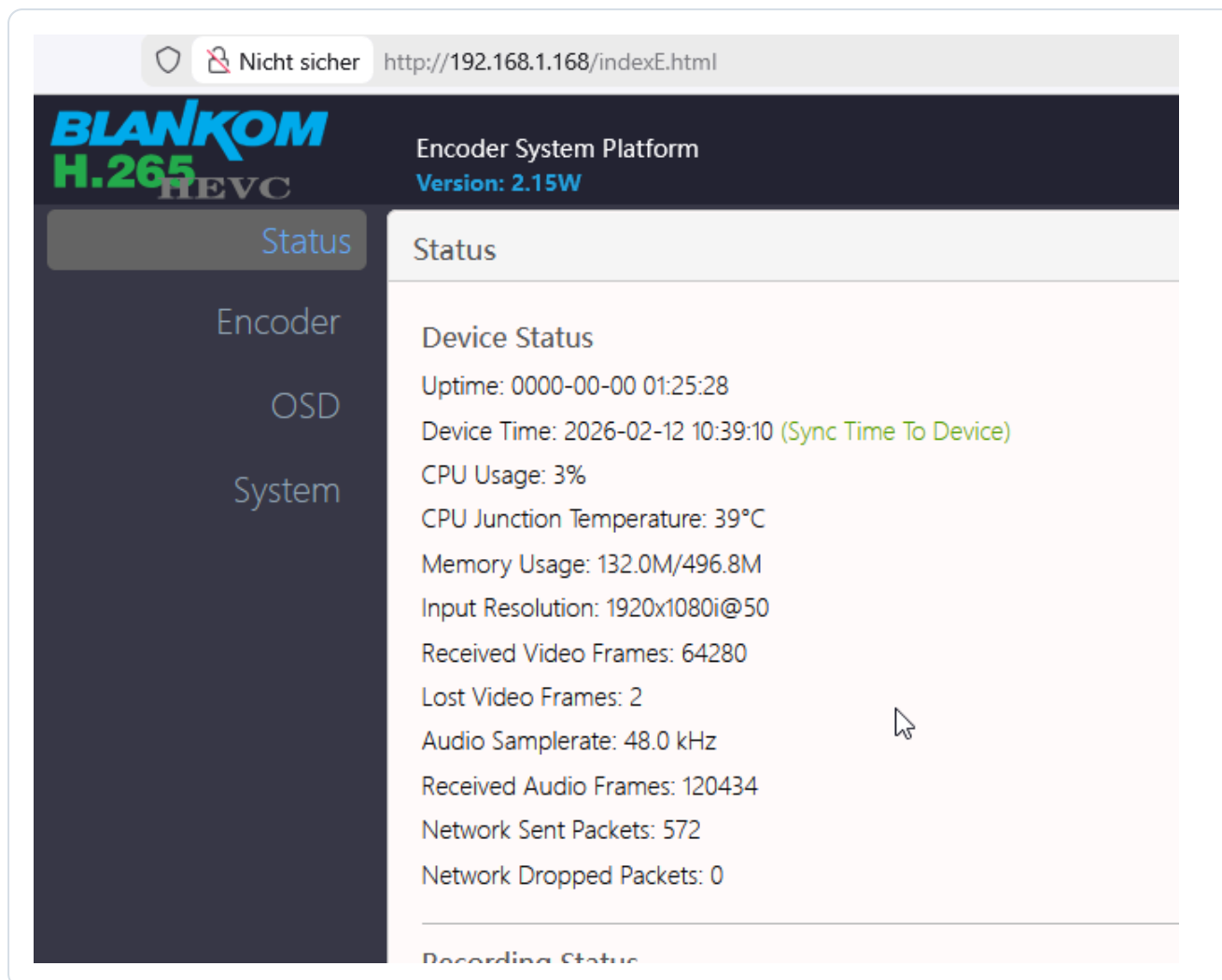
Recommended browsers are Firefox, Edge, Chrome and Opera. Other browsers also work, but individual browser settings may have an effect.

NOTE

Reset: all encoders and decoders of this family have a RESET switch behind a small hole on the front or rear panel. If you have lost the IP address or password, press the switch with a pin for at least 10–15 seconds until the green LED and the network LEDs go off, then release it. The unit reboots with factory defaults.

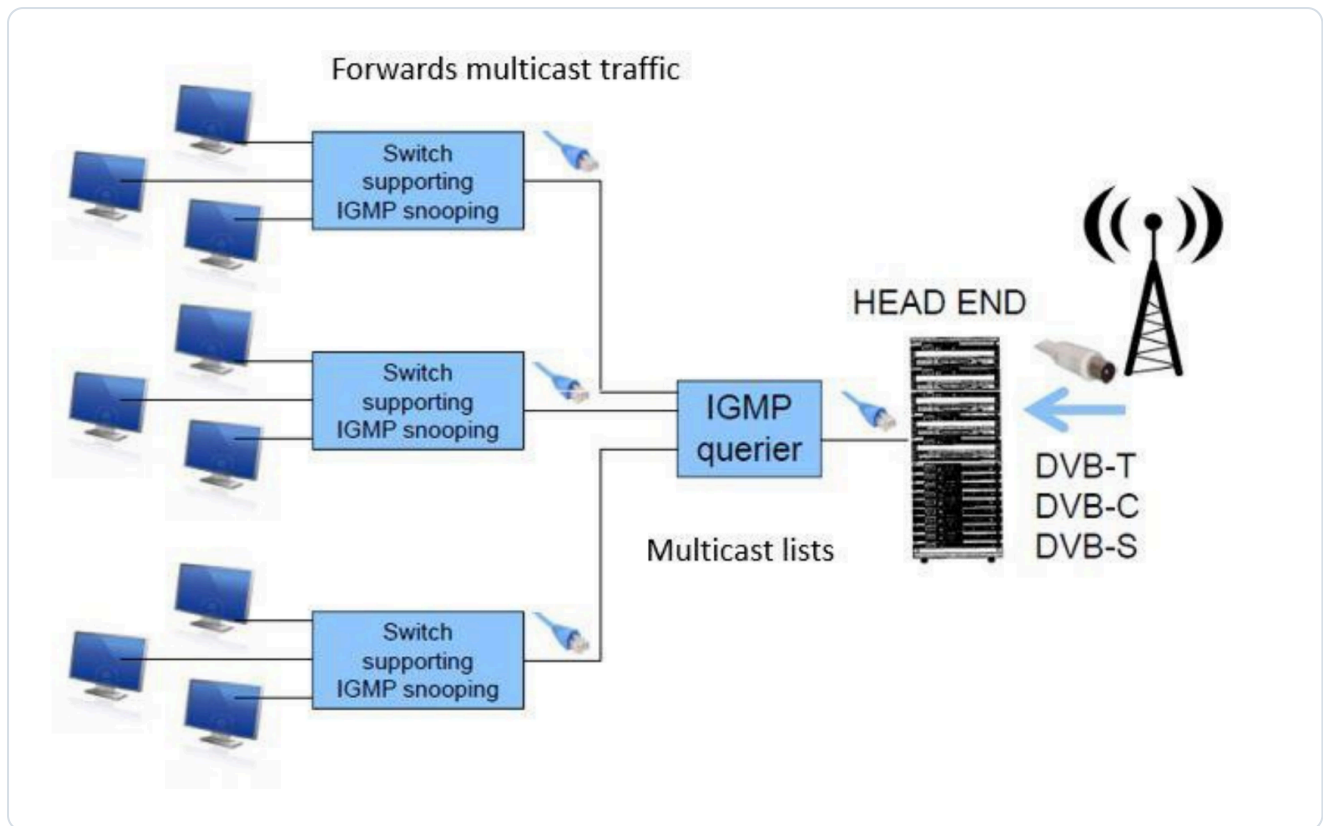
After login:

you see the status screen. Encoder:



Before you start

- The default encoding parameters are a good starting point. Keep them unless you know exactly what you want to change.
- Encoder bitrate: we recommend 5,000–8,000 kbit/s, depending on the picture quality you need – or more. Find the balance between quality and bandwidth.
- For multicast streaming (UDP/RTP), for example in hospitality IPTV networks, your Ethernet switches must support IGMP; otherwise the streams flood the network and overload the ports of other devices.
- Never use the same multicast address (224.0.0.0 – 239.255.255.255) twice in one network: IGMP manages these addresses in the switches on demand (query/snooping).



Decoder status screen (example with 4Kp30 maximum); both units already have an input signal:

←

→

↻

🛡️

Nicht sicher

http://192.168.1.169

BLANKOM

H.265 Video Decoder

Model: HDD-275

FW Version: 1.70.0

Status

Address setting

Advance setting

System setting

Device Info

Network setting

Serial to TCP

Passwd setting

System output

Video switching

Factory setting

Upgrade and Backup

Status

System status

Device Name: decoderboy

Device Time: 2026-02-12 10:40:36 (Sync time to device)

Runtime: 0000-00-00 00:48:06

CPU usage: 43%

CPU Junction Temperature: 51°C

MEM usage: 32MB/253MB

Net status: internet

HDMI format: 1080I50

Channel number: 1

Screen Layout

Layout: Disable

Channel1

URI: rtsp://192.168.1.169:9000?mode=listener

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9

Network settings

BLANKOM
H.265 HEVC

Encoder System Platform
Version: 2.15W

Status

Encoder

OSD

System

Network ▾

Record

Password

Transport

Upgrade and Backup

Reboot

Schedule Reboot

Factory Reset

Network

LAN

DHCP:

IP:

Netmask:

Gateway:

MAC:

IPv6 Status

Link-Local IP:

IPv6

Mode:

We recommend a static IP address rather than DHCP. IPv6 is now supported, but we recommend concentrating on IPv4 and leaving IPv6 in automatic mode.

DNS

DNS1:

DNS2:

NTP

NTP:

NTP Server:

Time Zone:

Adapt the DNS values to your local network. If a router or bridge with its own DHCP range sits in between, use addresses outside the DHCP range that are reserved for static IPs, to avoid address conflicts.

NTP is useful for time synchronisation, for example to overlay time and date in the encoded video. You need an NTP server – in your local network (some internet routers provide one) or on the internet.

Port

HTTP Port:	80	Enable	[1-65500] Default HTTP port: 80.
HTTP Backup Port:	8086	Enable	[1-65500]
RTSP Port:	554	Enable	[1-65500] Default RTSP port: 554.
RTSP Backup Port:	8554	Enable	[1-65500]

The port numbers can normally stay at their defaults; change them only if you know what you are doing.

The new GUI supports mDNS. You can change the host name; when mDNS is enabled, the unit is reachable by its name, for example **encoder34728.local** – copy it into your browser.

Nicht sicher

http://encoder34728.local

BLANKOM
H.265
HEVC

Encoder System Platform
Version: 2.15W

Status

Encoder

OSD

System

Status

Device Status

Uptime: 0000-00-00 02:32:05

Device Time: 2026-02-12 11:45:47 (Sync Time To Device)

CPU Usage: 3%

CPU Junction Temperature: 40°C

Memory Usage: 131.4M/496.8M

Input Resolution: 1920x1080i@50

HOSTNAME

HOSTNAME:

mDNS:

mDNS URL:

Every change must be confirmed with **Apply**.

The network settings of the HDD decoder are nearly the same, but the decoder does not support mDNS, and its MTU setting is located here:

Status

Address setting

Advance setting

System setting

Device Info

Network setting

Serial to TCP

Passwd setting

System output

Video switching

Factory setting

Upgrade and Backup

Reset device

Reboot device

Schedule Restart

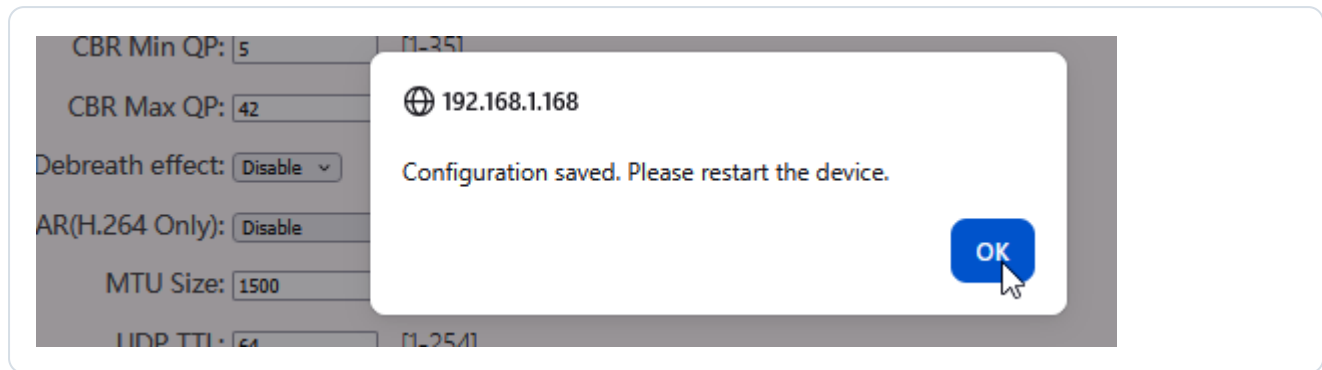
Network setting**Internet access**DHCP: IP: Mask: Gateway: MAC: **DNS**DNS 1: DNS 2: MTU: **NTP**NTP Enable: NTP Server: Time Zone: **Port**HTTP Backup Port:

If the encoder streams pass through VLANs in a GbE switch, you may need to increase the MTU value to avoid packet loss, for example in UDP streams. Such losses are often only visible at the receiver as picture or sound disturbances and macroblocking. On the encoder, the MTU is set under **Encoder → Advanced**:

MTU Size: [500-1500]UDP TTL: [1-254]UDP Socket Buffer Size: (0-20971520)**NOTE**

Note: some switch manufacturers use proprietary, non-public functions that can cause such disturbances by dropping packets.

The Apply confirmation

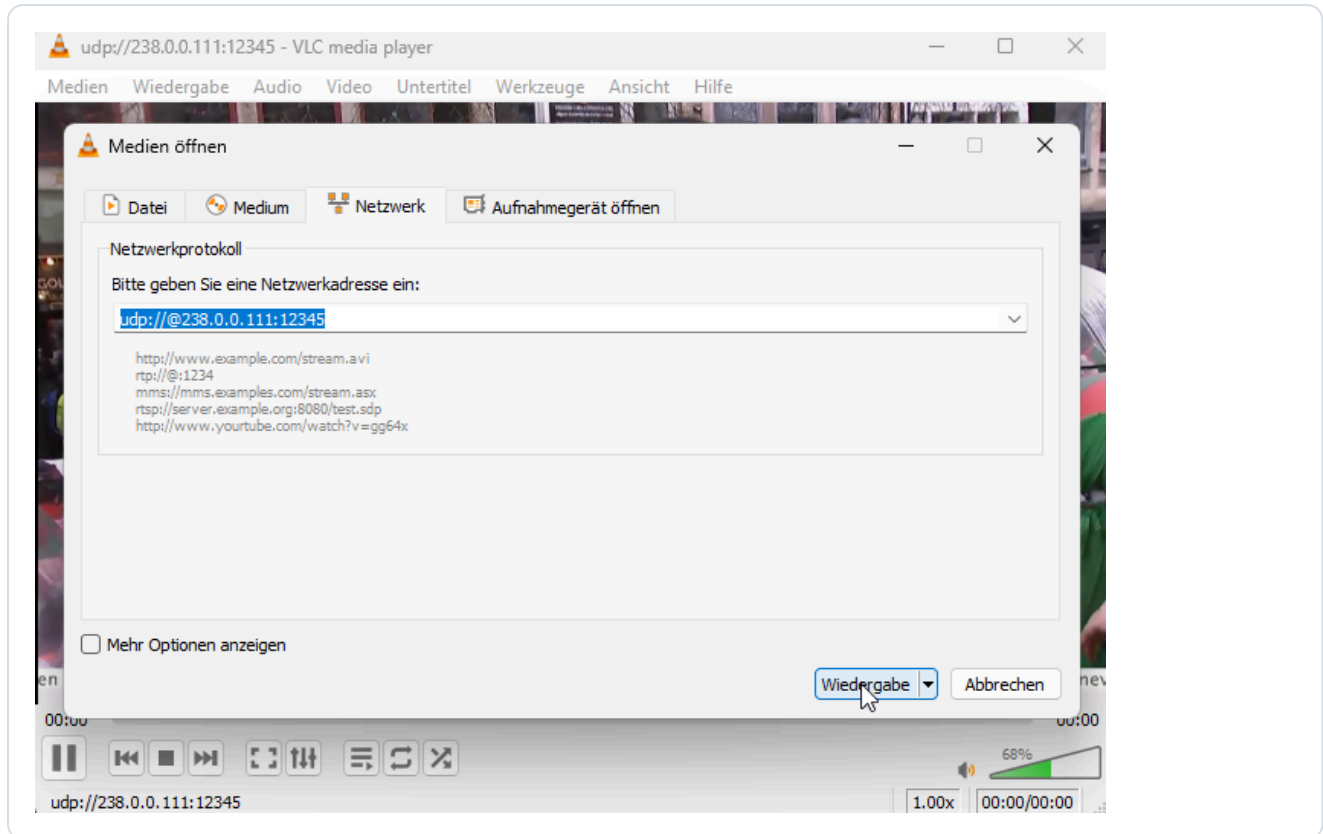


The confirmation message usually does **not** mean that the encoder or decoder must be rebooted. It means that your receiving device must be re-adjusted or restarted, because you have changed an essential parameter.

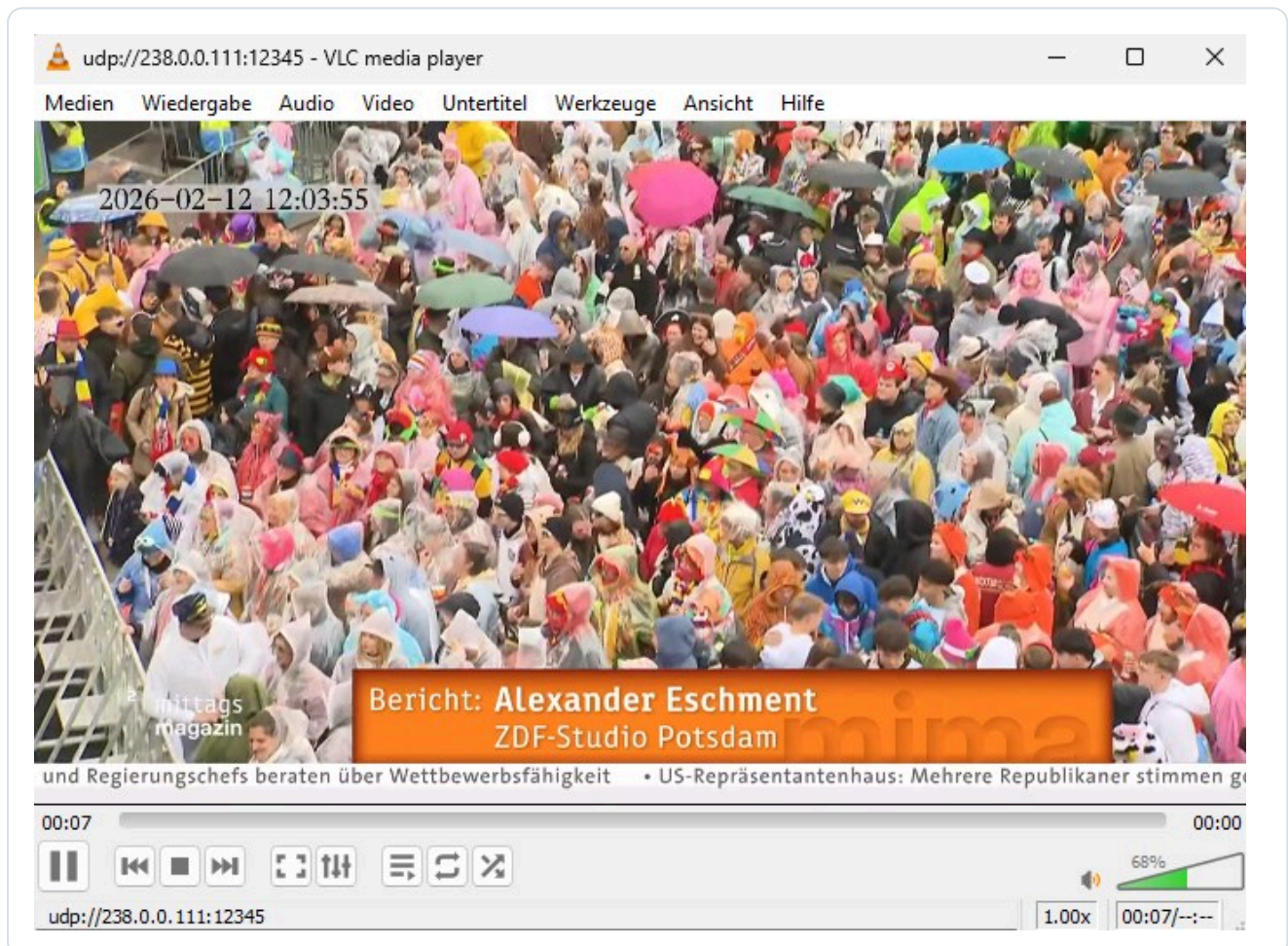
Example: after changing the codec from H.264 to H.265/HEVC, the receiver may stop decoding:



This player stopped after the codec change. Restart it:

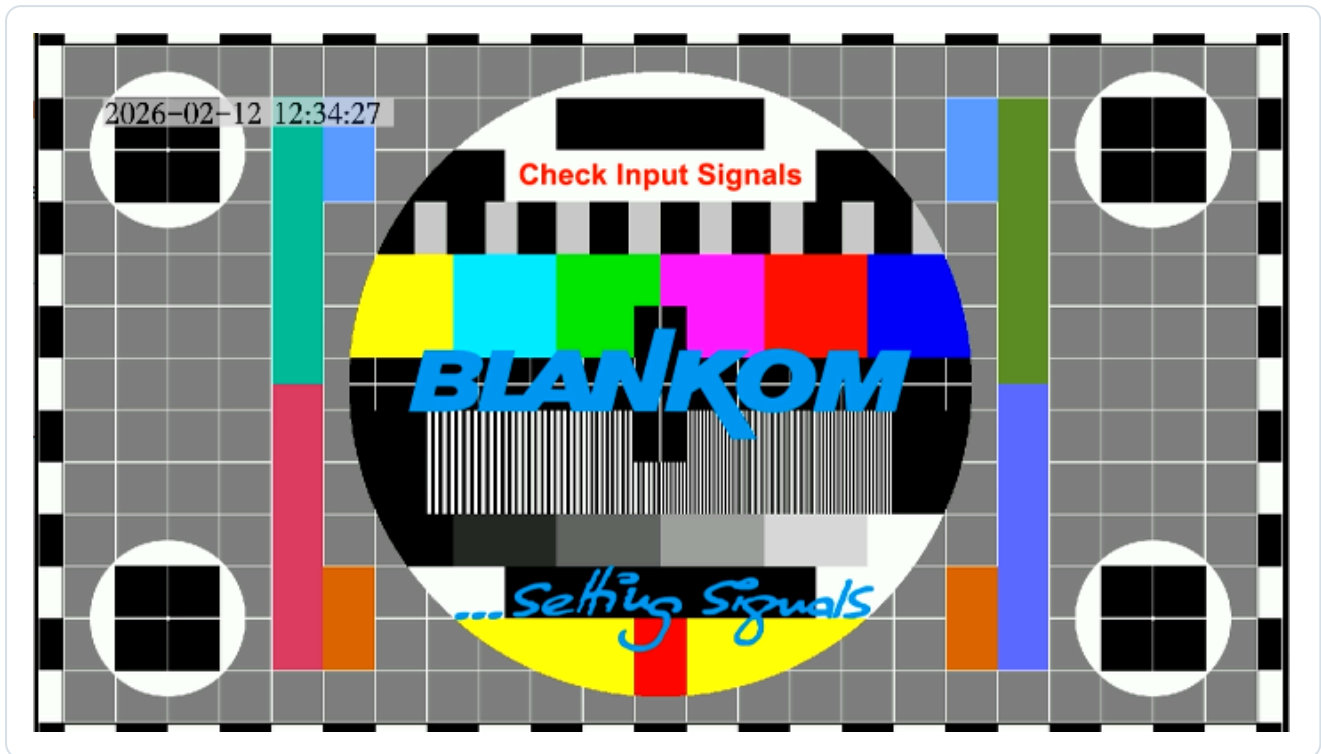


and the picture is back:



Test picture and on-screen display (OSD)

Without a valid input signal, the encoder streams a test picture:



Some decoders and IPTV receivers treat this as a "pumping" stream. To make sure the stream never contains a completely still picture, insert a running clock as an overlay: open the **OSD** menu and enable the **Time** information:

BLANKOM

H.265

HEVC

Encoder System Platform

Version: 2.15W

Status

Encoder

OSD

Main stream

Substream1

Substream2

Substream3

LOGO Upload

System

Main stream

Alpha

Alpha: 200 [0-255]

Area 1

Area Enable

Type: Time

X: 100 [0-1920]

Y: 100 [0-1080]

Font Size: 36 [8-72]

Background Color: White

Font Color: Choose Color

Area 2

Up to four OSD elements can be added as logos or text, each with its own position (X/Y), colours and transparency (alpha). A lower alpha value increases the transparency:



Area 1

Area Enable

Type: Time

X: [0-1920]

Y: [0-1080]

Font Size: 36 [8-72]

Background Color: White

Font Color: Choose Color

For PNG logos, a few rules apply – for example a maximum size of 500 kB per file. Logos and banners are uploaded in their submenu:

Status

Encoder

OSD

Main Stream

Sub Stream 1

Sub Stream 2

LOGO Upload

System

LOGO Upload

LOGO:

Durchsuchen...

Keine Datei ausgewählt.

Please upload an image under 500KB. Supported formats: PNG / JPG / BMP (for transparency use a PNG or 32-bit BMP with an alpha channel).
Filename must be logo1 / logo2 / logo3 / logo4, with extension .png / .jpg / .jpeg / .bmp.
e.g. logo1.png, logo1.jpg, logo1.jpeg, logo1.bmp

Upload

Uploaded LOGO

Refresh

PREVIEW	LOGO FILE	TYPE	SIZE	OPERATION
No uploaded LOGO				

Recording to NFS or SAMBA

Record MP4/TS files directly to a network share – no NVR needed.

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In this part [Recording to NFS or SAMBA](#)

KEY POINTS

- NFS v4 or a mounted SAMBA server; SAMBA needs matching versions on both sides.
- A Linux PC or Raspberry Pi with an SSD makes a simple NFS server.
- Recording starts only when an input signal is present.

Recording to NFS or SAMBA

The new GUI can record to an NFS server (v4) or to a mounted SAMBA file server*. SAMBA is considerably more complex: the versions on both sides must match, and a Windows SMB server behaves differently from a Linux server. Professional IT knowledge is required here – otherwise please involve your IT team.

Example: NFS server on Linux

A simple NFS server can be set up on any Linux PC or server, or on a Raspberry Pi 5 with an attached SSD running the current Raspberry Pi OS. Open a terminal and enter:

```
sudo apt-get update
sudo apt-get install nfs-kernel-server
sudo mkdir /home/public
sudo chmod ugo+rw /home/public      # open for everyone
sudo nano /etc/exports
```

Add this line, save the file and reload the exports:

```
/home/public *(rw,sync,no_subtree_check,all_squash)
sudo exportfs -ra
sudo service nfs-kernel-server restart
sudo rpcinfo -p
```

The last command should list portmapper, status, nfs, nlockmgr and mountd several times.

In the recording settings of the encoder, enter the server address and the folder in the form **<IP address>:/home/public/** and click **Mount**. If mounting fails, a message is shown.

Accessing the share from Windows 11

On a Windows 11 PC, mount the NFS share in a command prompt or PowerShell opened as administrator:

```
PS C:\Users\Blank> New-PSDrive -Name K -PSProvider FileSystem -Root "\\192.168.1.135\home\public" -Persist
```

Name	Used (GB)	Free (GB)	Provider	Root	CurrentLocation
K	17,39	216,77	FileSystem	\\192.168.1.135\home\public	

```
PS C:\Users\Blank> |
```

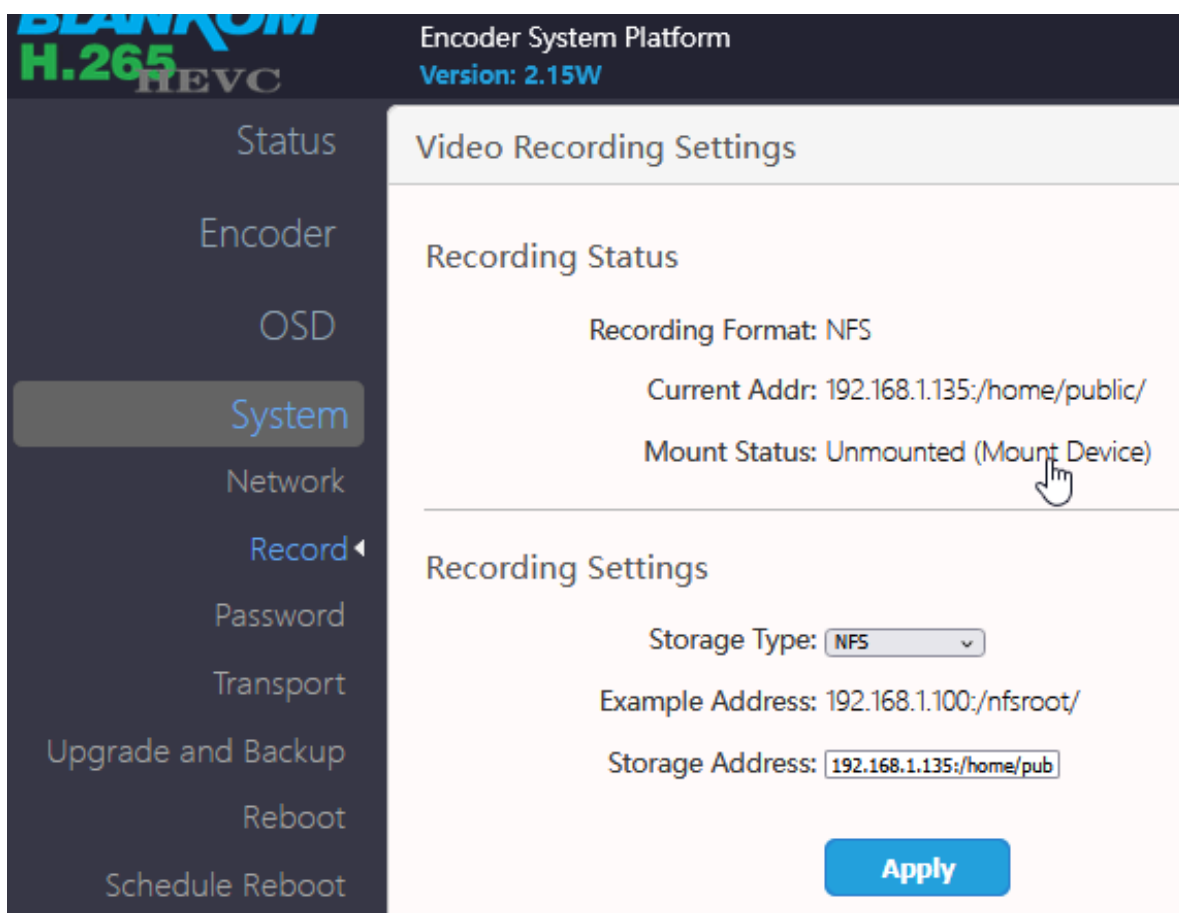
Here it appears as virtual drive K (use a free drive letter):

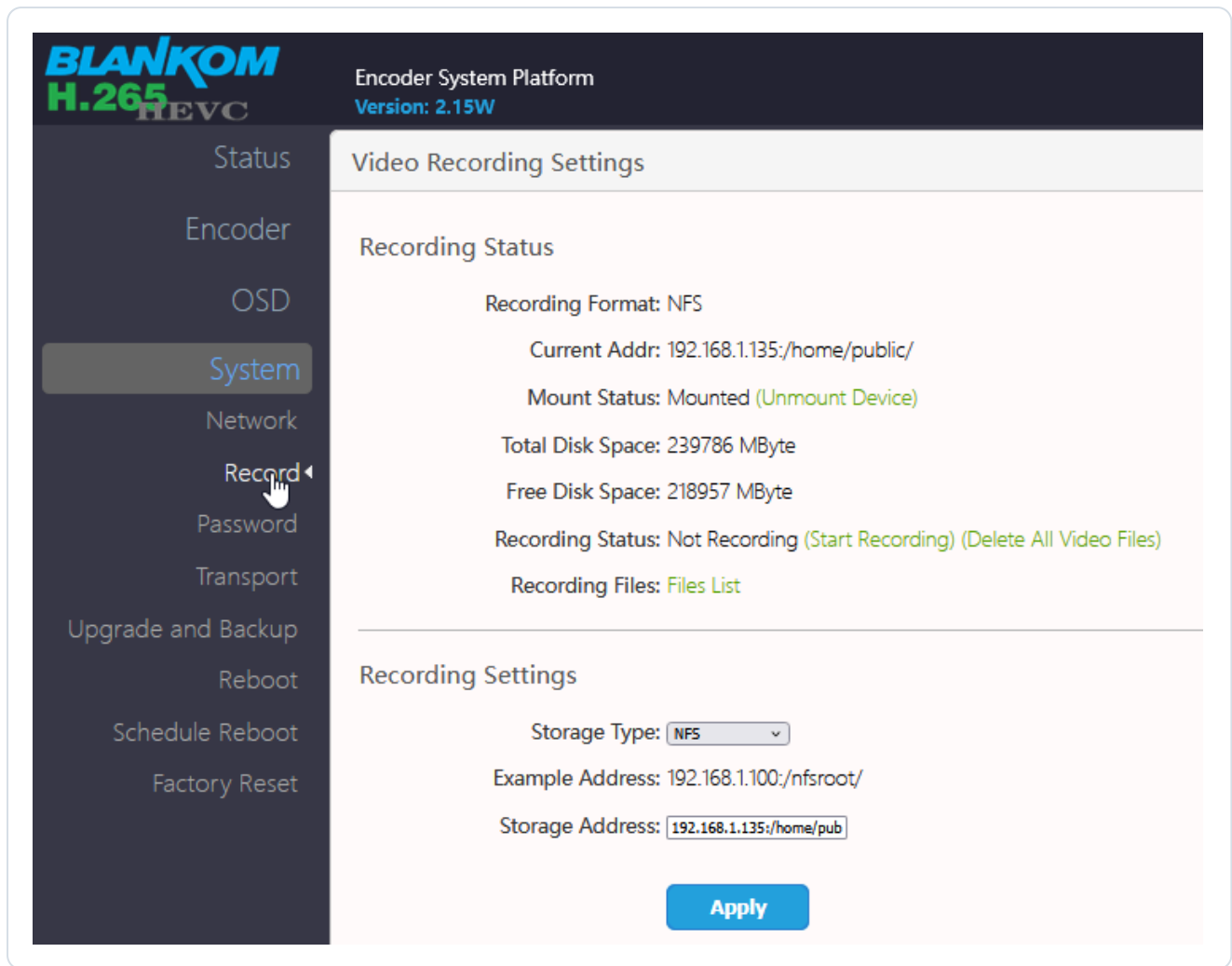


To unmount it in PowerShell:

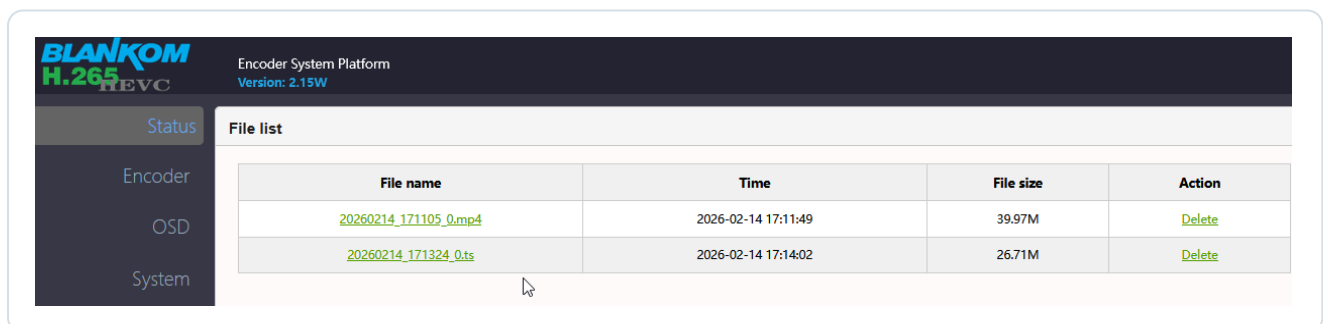
```
Remove-PSDrive -Name K
```

Recording on the encoder

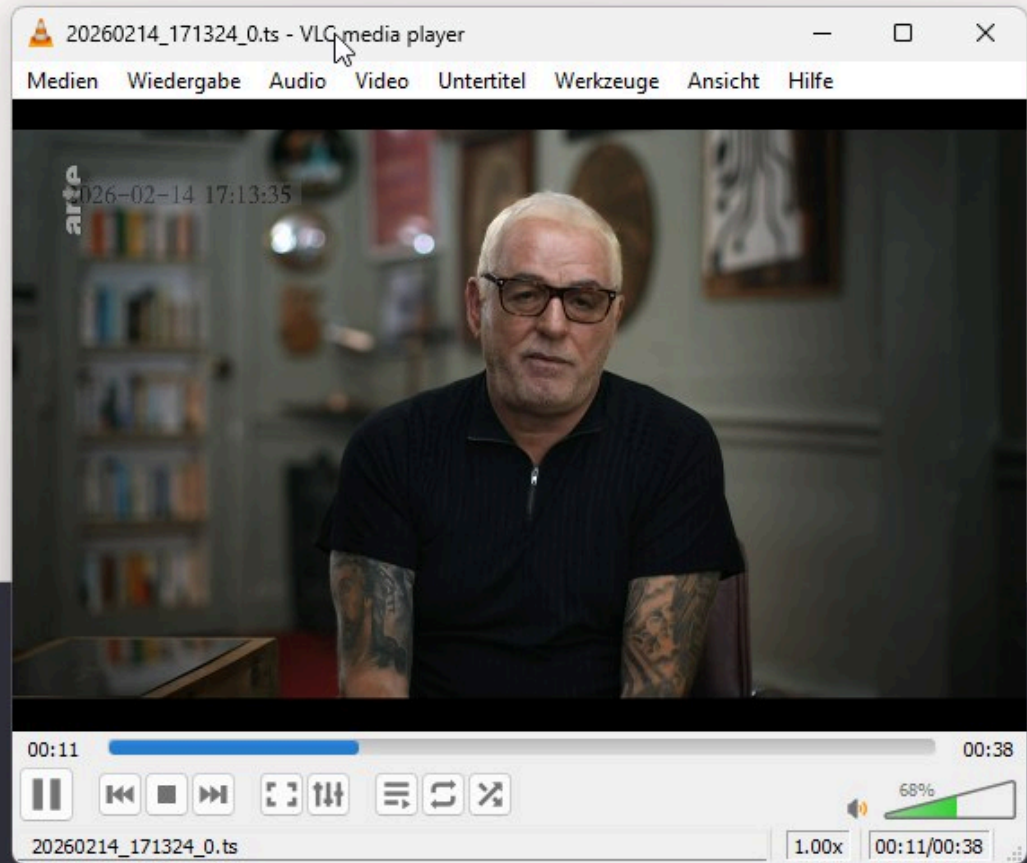




Recording starts only when an input signal is present. After recording, the files are listed and can be accessed from a Windows PC, directly on the Linux server, or played from the browser (downloading takes some time). An expensive NVR is no longer necessary.



File name	Time
20260214_171105_0.mp4	2026-02-14 17:11:49
20260214_171324_0.ts	2026-02-14 17:14:02



Input front ends, encoding and preview

Match the encoder to the input signal, choose codec, frame rate, GOP and bitrate mode, and check the result in the preview.

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In this part [Input front ends](#) [Encoding parameters](#) [Preview functions](#) [Encoder settings in practice](#)

KEY POINTS

- Check the input on the status screen first; factory defaults are 30 fps / GOP 30 (60 Hz world).
- Recommended GOP: twice the frame rate. Interlaced input is always encoded progressive.
- Switch B-frames off when the stream goes to an HDD-275; the HDD-276 decodes them.
- DVB systems require Strong CBR: at least 5,000 kbit/s for 1080p, 8,000 kbit/s recommended.

Input front ends

The input front ends naturally offer different encoding parameters. Example for VGA (VDE-265):

BLANKOM H.265 HEVC Encoder System Platform
Version: 2.15W

Status **Video Input** Input Brightness Adjustment Video Output

Encoder

Main stream

Substream1

Substream2

Substream3

Video

Audio

Advanced

OSD

System

◆ Rotation is available only when the input format is YUV420.
◆ Video Crop (Origin: Top-Left).

Video Input Format: YUV422

Flip / Mirror: Disable

Video Crop: Disable

Video Crop Start X (pixels): 0 [0,1920]

Video Crop Start Y (pixels): 0 [0,1080]

Video Crop Width (pixels): 512 [400,1920]

Video Crop Height (pixels): 512 [400,1080]

Apply

HDMI encoder, current S6L55M version (SDI, VGA and DisplayPort versions are also available):

BLANKOM H.265 HEVC

English

Status

Encoder

Main Stream

Sub Stream 1

Sub Stream 2

Video Settings

Audio Settings

OSD

System

Video Input Settings Input Brightness Adjustment

180° and 270° rotation can be achieved by combining 0°/90° rotation with flip/mirror.

Rotation Angle: 0°

Flip/Mirror: Disable

Video Crop: Disable

Crop Start Point (Left): 0 [0,1920]

Crop Start Point (Top): 0 [0,1080]

Crop Width: 400 [400,1920]

Crop Height: 400 [400,1080]

Monochrome: Disable

Save

Video Input Settings **Input Brightness Adjustment**

Input Color Mode: RGB

Brightness Adjustment: Disable

Gain: 100 [10-1000], default 100

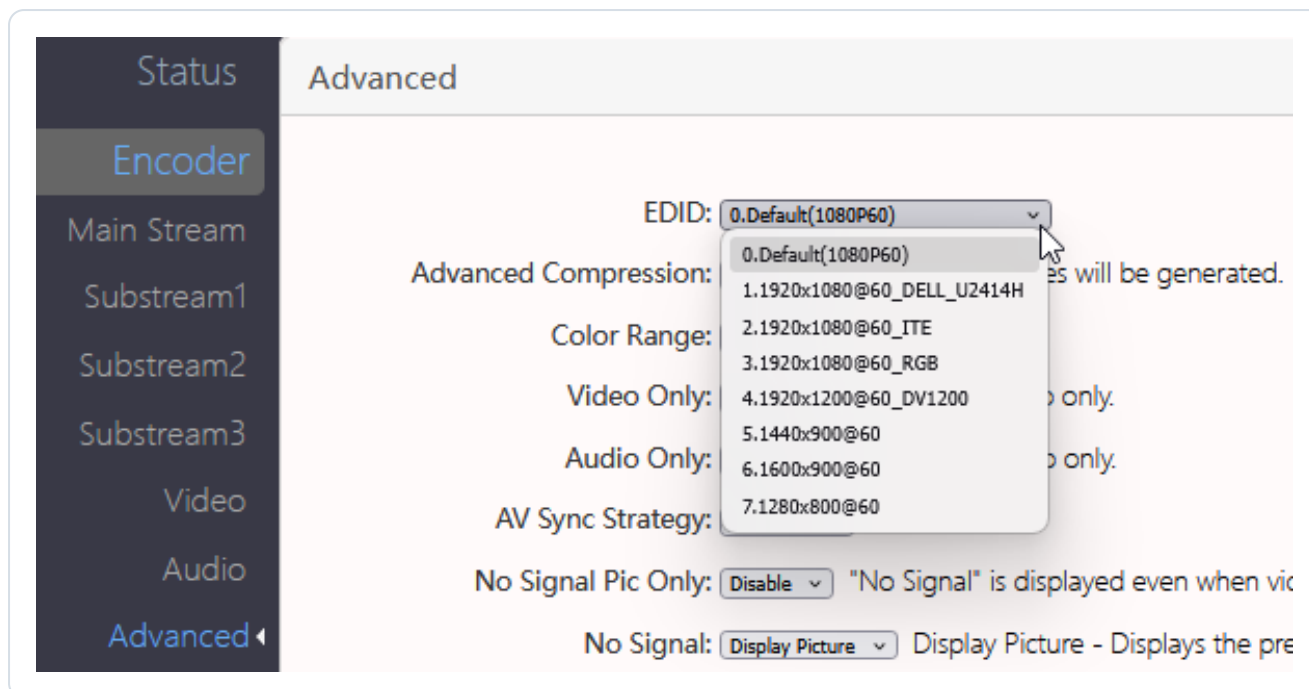
Offset: 0 [0-100], default 0

Note:

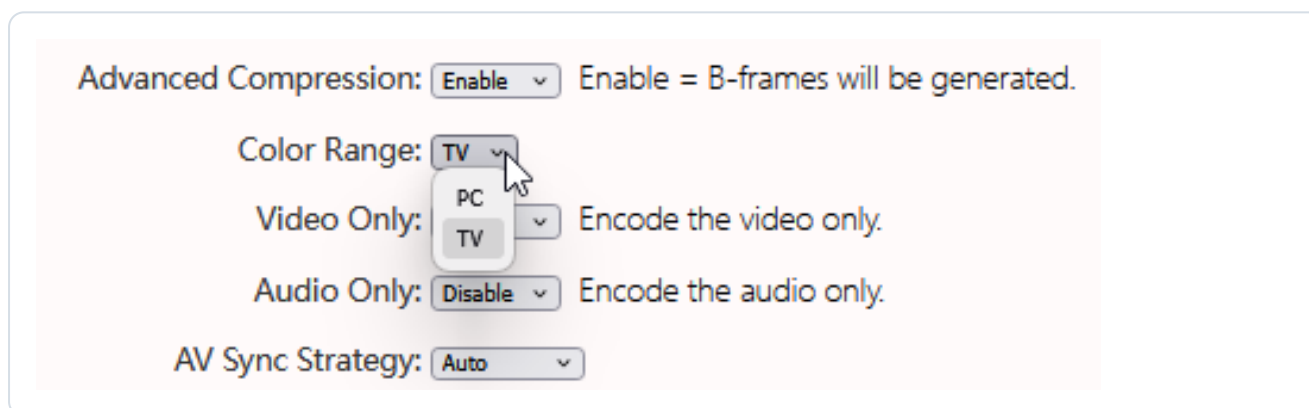
- Brightness = (Original Brightness * Gain / 100) + Offset
- Brightness adjustment only works in RGB input color mode

Save

Compared with the VGA and SDI versions, the HDMI encoder has an extra entry for the HDMI settings:



The EDID tells the source which HDMI formats the input accepts. B-frame support:



If the chipset* and codec support B-frames, they can improve picture quality, but they may increase latency and the bitrate of the stream. Please make yourself familiar with the codec structures.

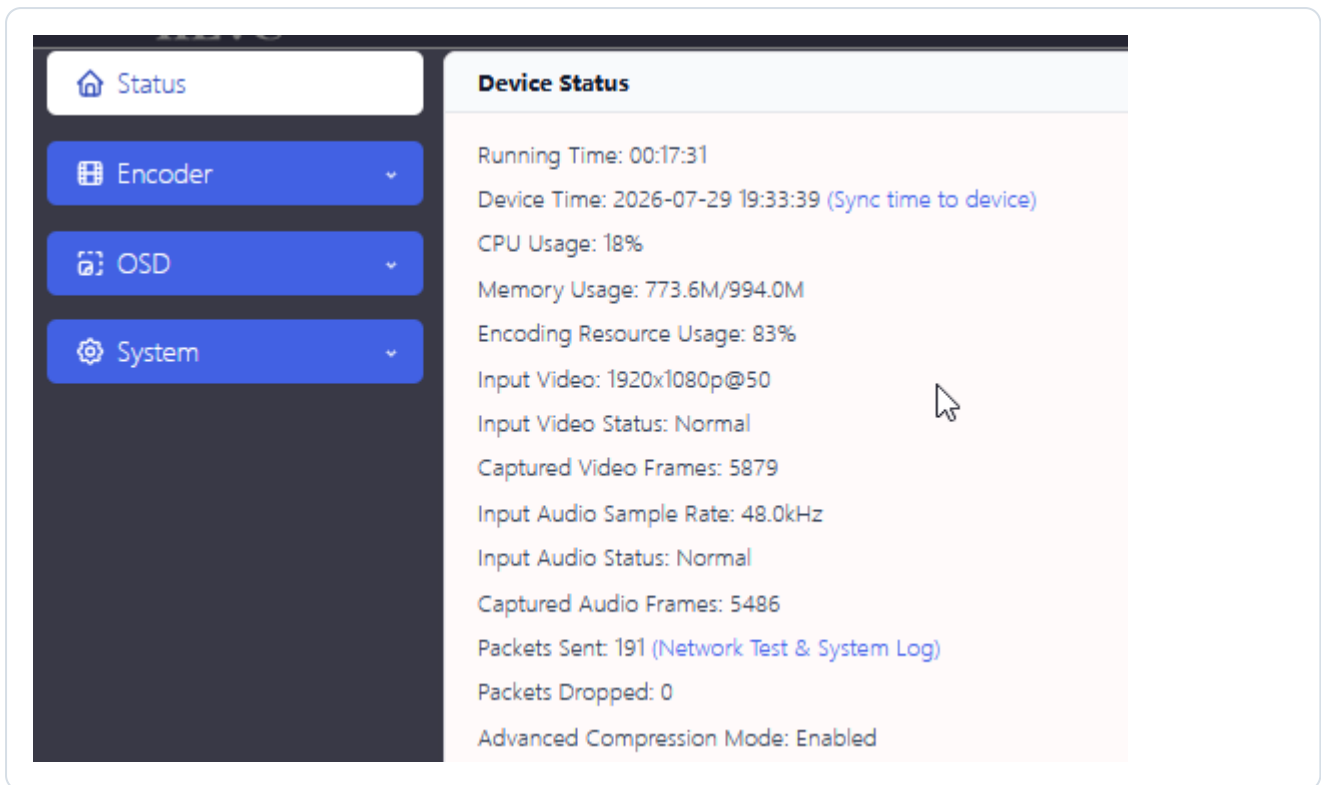
Encoding parameters

A video encoder has many parameters to serve requirements worldwide. Countries with 60 Hz television (30 or 60 fps, historically NTSC) differ from 50 Hz countries (PAL), and interlaced and progressive formats must be considered. Full HD, for example, can arrive as 1920 × 1080i50; German public broadcasters transmit 720p50 via satellite, while others transmit 1080i50.

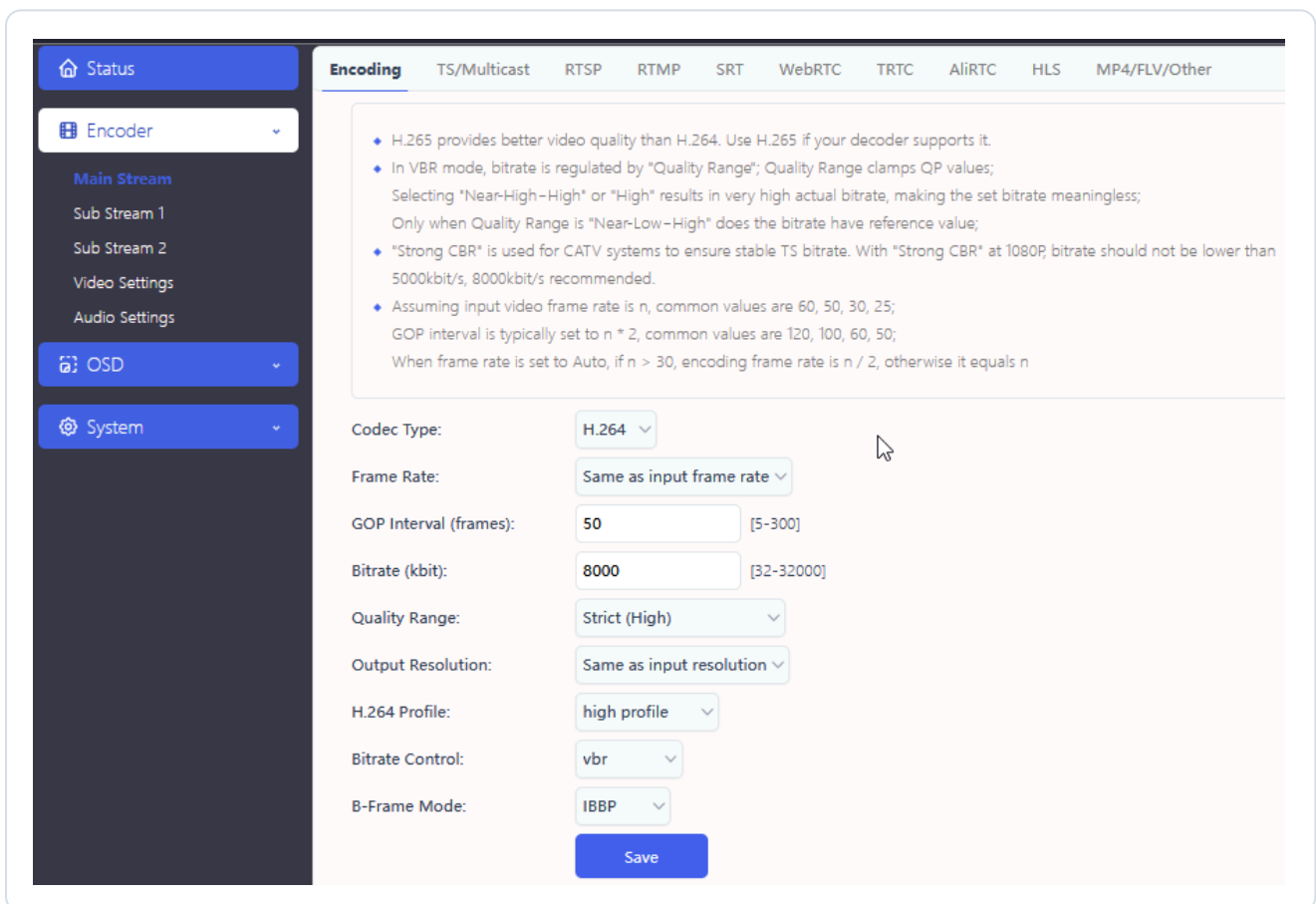
Our SoC encoders accept interlaced input and combine the two fields into a progressive picture: 1080i50 becomes 1080p25 (or 1080p50). The factory defaults are 30 fps and GOP 30, which belong to the 60 Hz world – so check them first. A little background on codec structures (IBBP or IP frames) is helpful.

First step: check the input

Read the input signal values on the status screen; it takes a moment to update:



Then set the encoding parameters for the main and sub streams:



NOTE

Follow the hints in the web menu. Not all chipsets support B-frames, and the HDD-275 decoder does not decode them – switch B-frames off if the stream goes to an HDD-275. The HDD-276 decodes B-frames.

You can convert the input to a different output frame rate – but if an interlaced 50 Hz input is encoded at 30 fps (progressive, the chip default), the encoder must repeat or drop frames and the quality decreases. We recommend setting the GOP to twice the frame rate.

Preview functions

The status window shows almost all running parameters in real time:

BLANKOM H.265 HEVC Encoder System Platform
Version: 1.57A

Status

Device Status

- Uptime: 0000-00-00 01:46:46
- Device Time: 2026-02-17 12:26:47 (Sync Time To Device)
- CPU Usage: 19%
- Memory Usage: 238.3M/512.0M
- Codec Usage: 86%
- Input Resolution: 1920x1080i@50
- Video Status: Normal
- Received Video Frames: 9091
- Audio Samplerate: 48.0 kHz
- Audio Status: Normal
- Received Audio Frames: 8422
- Network Sent Packets: 178
- Network Dropped Packets: 0
- Preview (Low Latency)

Video Preview: A news broadcast showing a man and a woman sitting at a table, with a red glowing joint graphic overlaid. A red banner at the bottom of the video contains German text: "EILMELDUNG: Der Verfassungsschutz Niedersachsen hat demnach 'rechtsextremistische Bestrebungen' bei der AfD..."

Click the green **Preview** link to view the input signal directly in the web interface; close the embedded video with the button in its upper right corner. The status page also offers a preview for each encoder part (main and sub streams):

Main Stream

Video Codec: H.264

Video Resolution: 1920x1080@50

Bitrate (kbps): 8000

Real-time FPS: 50.10

TS URL: <http://192.168.1.168/0.ts>

HLS TS URL: Disabled

HLS MP4 URL: Disabled

MP4 URL: <http://192.168.1.168/0.mp4>

FLV URL: <http://192.168.1.168/0.flv>

RTSP URL: <rtsp://192.168.1.168/0>

RTMP URL: Disabled

RTMP(S) Push URL0: Disabled

RTMP(S) Push URL1: Disabled

RTMP(S) Push URL2: Disabled

Multicast URL: <udp://@238.0.0.1:1234>

SRT Listener URL: <srt://192.168.1.168:9000>

SRT Caller URL(Connected):<srt://192.168.1.169:9002>

HLS Push URL:Disabled

TRTC Room: Disabled

Icecast Push URL:Disabled

Preview (HTML5)



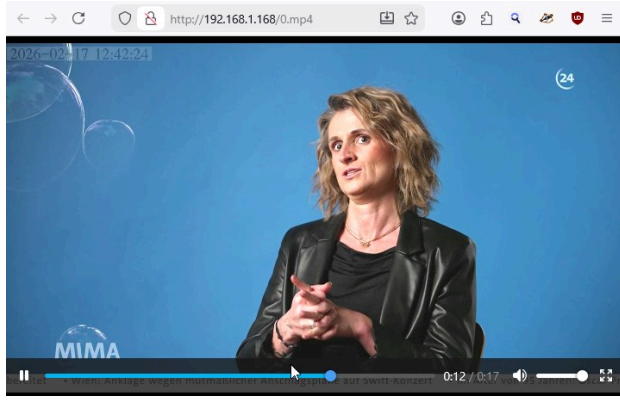
Main Stream

Video Codec: H.264
 Video Resolution: 1920x1080
 Bitrate (kbps): 8000
 Real-time FPS: 50.10
 TS URL: <http://192.168.1.168/0.ts>
 HLS TS URL: Disabled
 HLS MP4 URL: Disabled
 MP4 URL: <http://192.168.1.168/0.mp4>
 FLV URL: <http://192.168.1.168/0.flv>
 RTSP URL: <rtsp://192.168.1.168/0>
 RTMP URL: Disabled
 RTMP(S) Push URL0: Disabled
 RTMP(S) Push URL1: Disabled
 RTMP(S) Push URL2: Disabled
 Multicast URL: <udp://@238.0.0.1:1234>
 SRT Listener URL: <srt://192.168.1.168:9000>
 SRT Caller URL(Connected): <srt://192.168.1.169:9002>
 HLS Push URL: Disabled
 TRTC Room: Disabled
 Icecast Push URL: Disabled
 Preview (HTML5)



You can also copy these URLs into video players such as VLC, PotPlayer or FFplay, into IPTV set-top boxes, our HDD decoders or TV sets with an integrated IPTV client. The internal preview player needs the FLV URL to be enabled. FLV is an outdated Adobe format: it works best with H.264; H.265/HEVC is also supported, but without player controls.

A full-screen browser preview is available when MP4 HTTP streaming is enabled:



Main Stream

Video Codec: H.264
 Video Resolution: 1920x1080@50
 Bitrate (kbps): 8000
 Real-time FPS: 50.10
 TS URL: <http://192.168.1.168/0.ts>
 HLS TS URL: Disabled
 HLS MP4 URL: Disabled
 MP4 URL: <http://192.168.1.168/0.mp4>
 FLV URL: <http://192.168.1.168/0.flv>

It opens a new browser window and plays the stream.

Encoder settings in practice

Before you configure the encoder, you need to know:

- your input values – resolution and frame rate, and possibly the audio level and format (PCM or bitstream);
- whether you want to transcode the input or simply stream it as it is;
- your target clients and the protocols they support.

SoC-based encoders like these behave differently from FPGA-based professional encoders, and PC players such as VLC tolerate packet loss and other errors far better than most hardware receivers. This manual cannot explain every codec parameter for every client; IPTV receivers and set-top boxes also have their own limitations and quirks.

The sub streams can be configured with other encoding parameters for parallel output; their set-up is not described separately here. The audio settings are common to all four streams (two on some models).

The ideal starting point is the input parameters shown on the status page:

A screenshot of a status page with a light pink background. It displays the following text: 'Codec Usage: 86%', 'Input Resolution: 1920x1080i@50', 'Video Status: Normal', 'Received Video Frames: 15272', 'Audio Samplerate: 48.0 kHz', 'Audio Status: Normal', and 'Received Audio Frames: 19673'. A mouse cursor is visible over the 'Audio Samplerate' line.

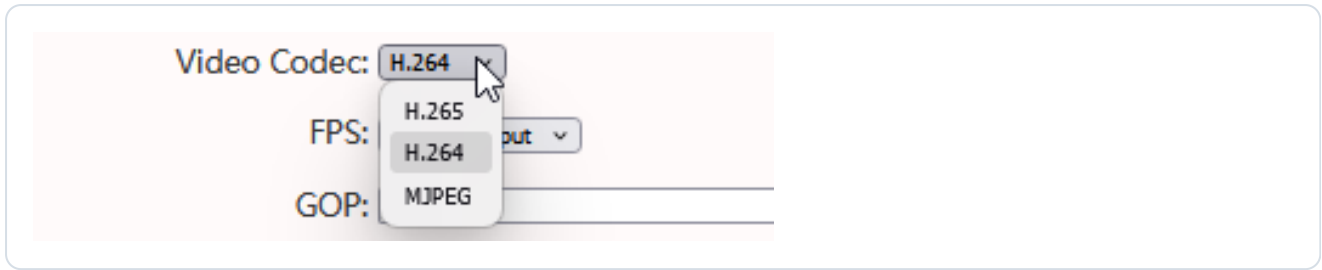
Codec Usage: 86%
Input Resolution: 1920x1080i@50
Video Status: Normal
Received Video Frames: 15272
Audio Samplerate: 48.0 kHz
Audio Status: Normal
Received Audio Frames: 19673

In this example the input is interlaced: HDMI from a satellite set-top box whose output is fixed to 1080i50, although the received channel may be 720p50. The input format should stay constant – frequent format changes at the HDMI/SDI input can cause longer interruptions and other side effects. With 1920 × 1080i50 and 48 kHz audio at the input, set the encoder parameters accordingly.

Hints from the encoding menu

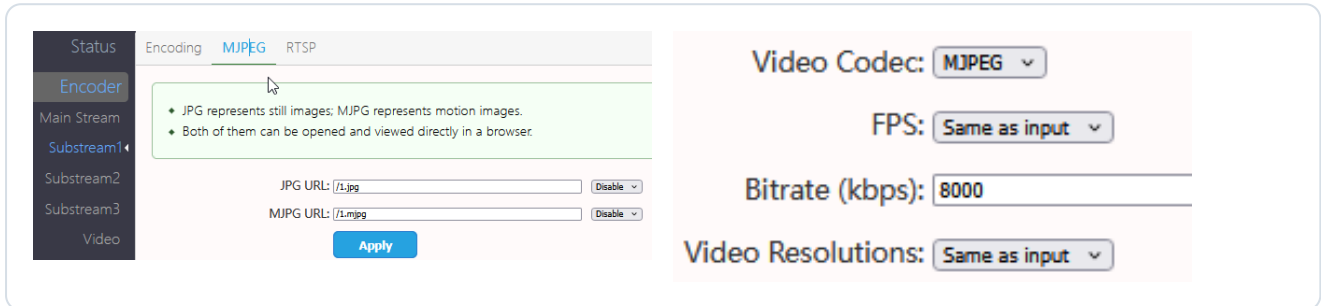
- H.265 offers better quality than H.264 – use it whenever your decoder supports it. Keyframe interval in seconds = GOP / fps.
- In VBR mode, the bitrate is limited by the quality range. "Better...Best" or "Best" can lead to very high bitrates that ignore the target bitrate; only "Lower...Best" keeps the target bitrate meaningful.
- DVB systems require "Strong CBR": at least 5,000 kbit/s for 1080p, 8,000 kbit/s recommended.
- Keyframe interval: for an input frame rate N (e.g. 60, 50, 30, 25), set the interval to $2 \times N$. In auto mode, the interval is $N/2$ for $N > 30$, otherwise N.

Some IPTV receivers support only H.264, so we recommend starting with H.264 and testing:

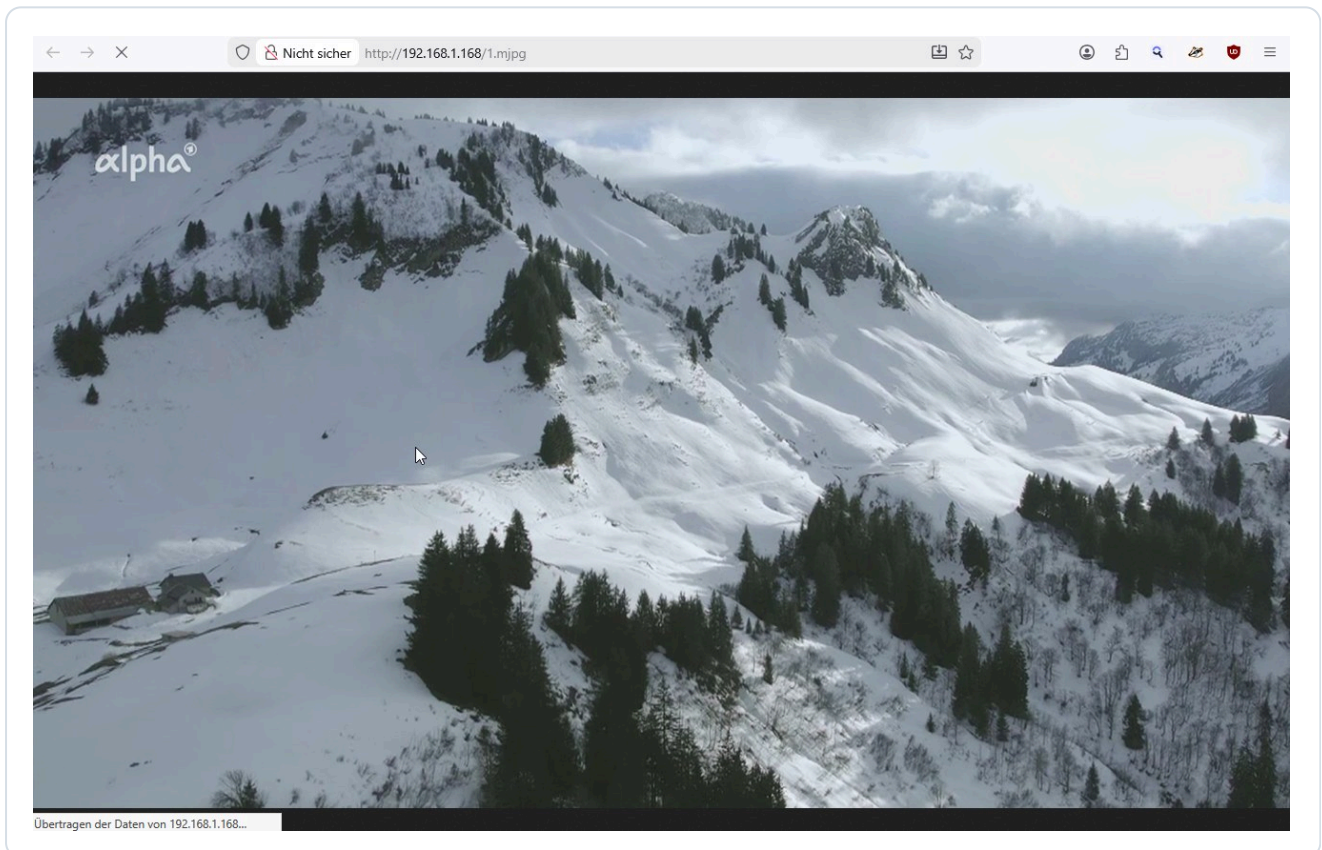


MJPEG

MJPEG is for direct MJPEG streaming. When it is selected, the streaming menu changes:



Enable MJPEG to get the link on the status page:

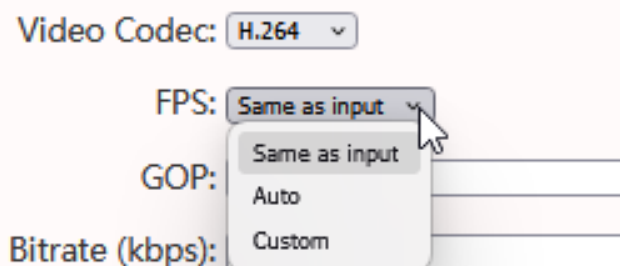


Video Codec: MJPEG
Video Resolution: 1920x1080@25
Bitrate (kbps): 5000
Real-time FPS: 25.01
JPG URL: Disabled
MJPEG URL: <http://192.168.1.168/1.mjpg>
TS URL: Disabled

NOTE

MJPEG carries no audio. If you set one encoder part (main or sub stream 1–3) to MJPEG, the other streams are switched off. If you enabled MJPEG by mistake and switched back, re-enable your previous streaming protocols.

Frame rate



The output follows the input: i50 becomes p50, p25 stays p25 – interlaced always becomes progressive. AUTO means i50 in, p25 out (the best choice). CUSTOM lets you set the value yourself; please be careful.



Changing the value to 30 produces a 30 fps stream for 60 Hz countries.

Video Codec: H.264
Video Resolution: 1920x1080@30
Bitrate (kbps): 8000
Real-time FPS: 29.91

Encoding quality

Image Quality Levels: Lower → Best

Video Resolutions: Best

H.264 Profile: Better → Best

Bitrate Mode: Mid → Best

Lower → Best

Lowest → Best

We recommend keeping the default, but you can experiment. Higher quality increases latency.

Encoding TS/Multicast RTSP RTMP(S) SRT WebRTC TRTC HLS **MP4/FLV/Other**

- ♦ MP4 streams can be played directly in browser. FLV streams support H.265 and H.264, but players such as VLC only decode H.264.
- ♦ Icecast is audio-only and supports MP3 streams.

MP4 URL: Disable ▾

FLV URL: Enable ▾

Icecast Push URL: Disable ▾

Apply

Note that VLC does not play the old Adobe Flash (FLV) format with HEVC – only with H.264:

1.flv - VLC media player

Fehler

Unidentifizierter Codec:
VLC konnte den Audio- oder Videocodec nicht identifizieren.

☒ Zukünftige Fehler nicht anzeigen

Löschen Schließen

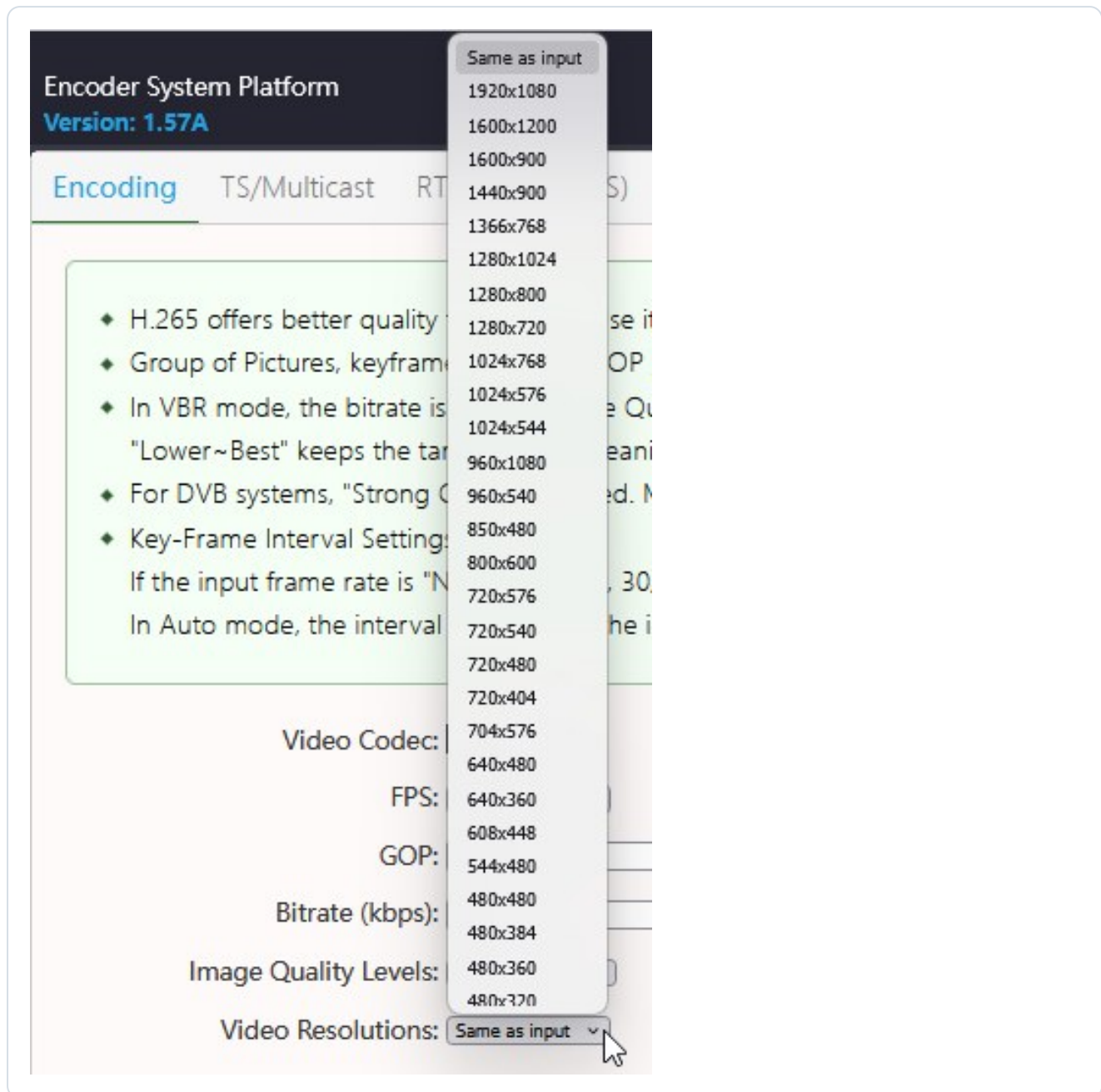
0.flv - VLC media player

Medien Wiedergabe Audio Video Untertitel Werkzeuge Ansicht Hilfe

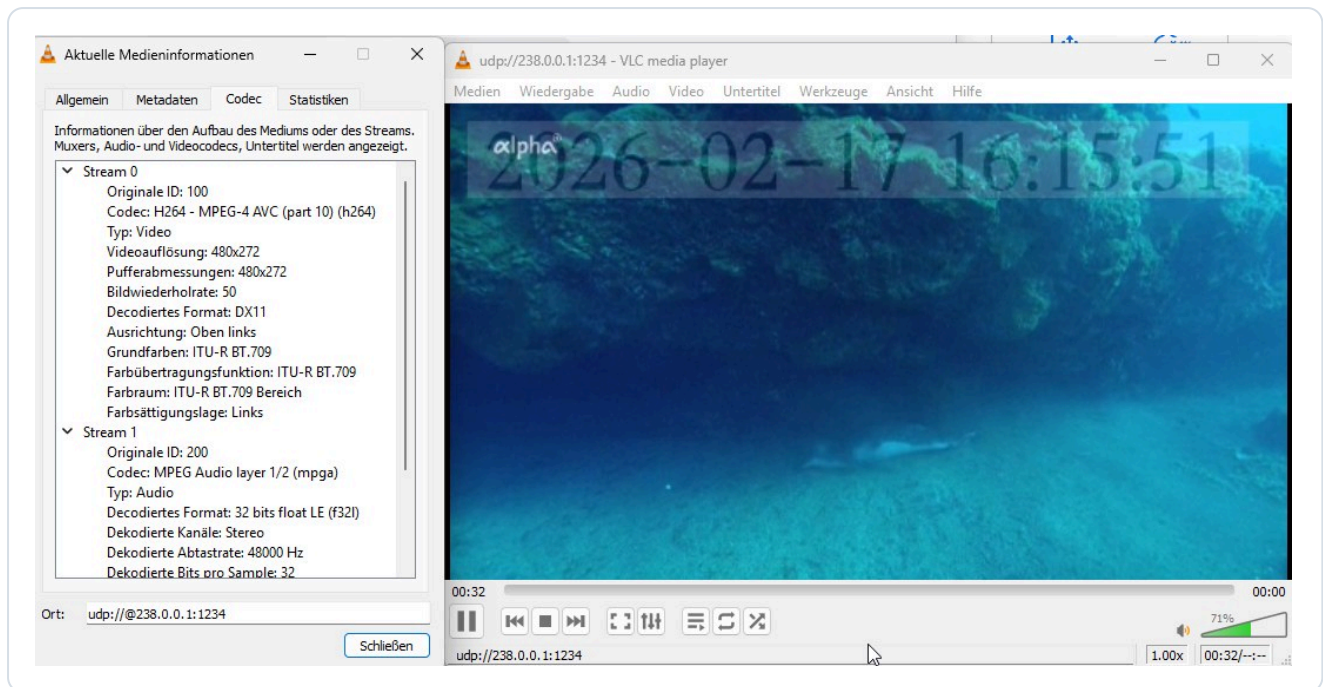
00:00 00:00

1.00x 100%

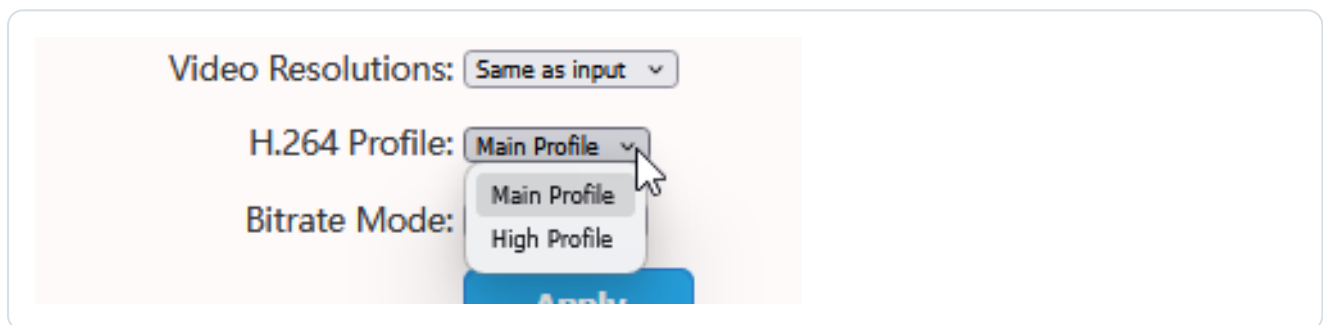
Output resolution



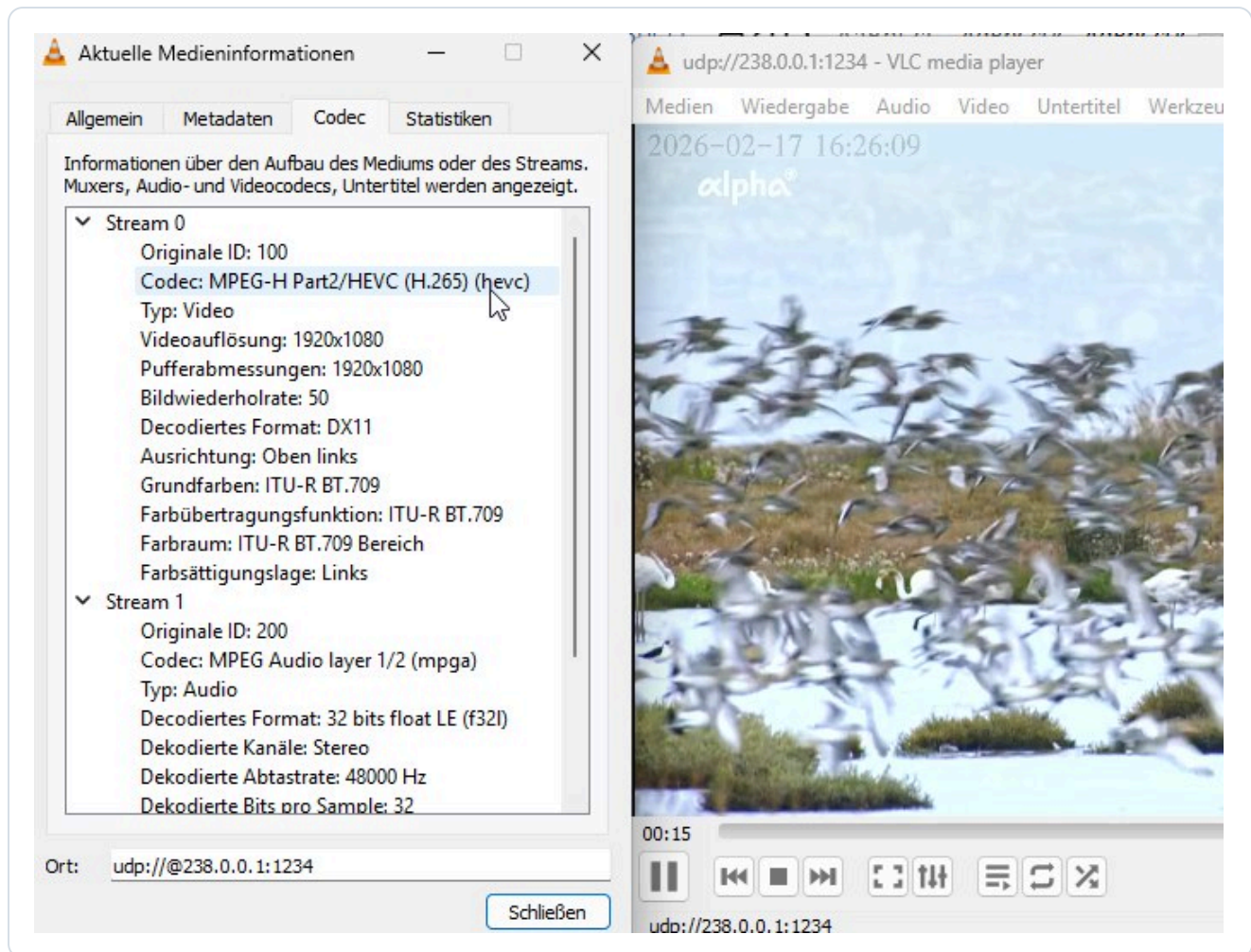
The encoder can change the format, but the OSD overlay then needs new parameters as well. Keep the aspect ratio correct: a 16:9 input encoded at 720 × 576 (4:3) produces an "egghead" picture. We therefore recommend the input-follow mode.



Profiles

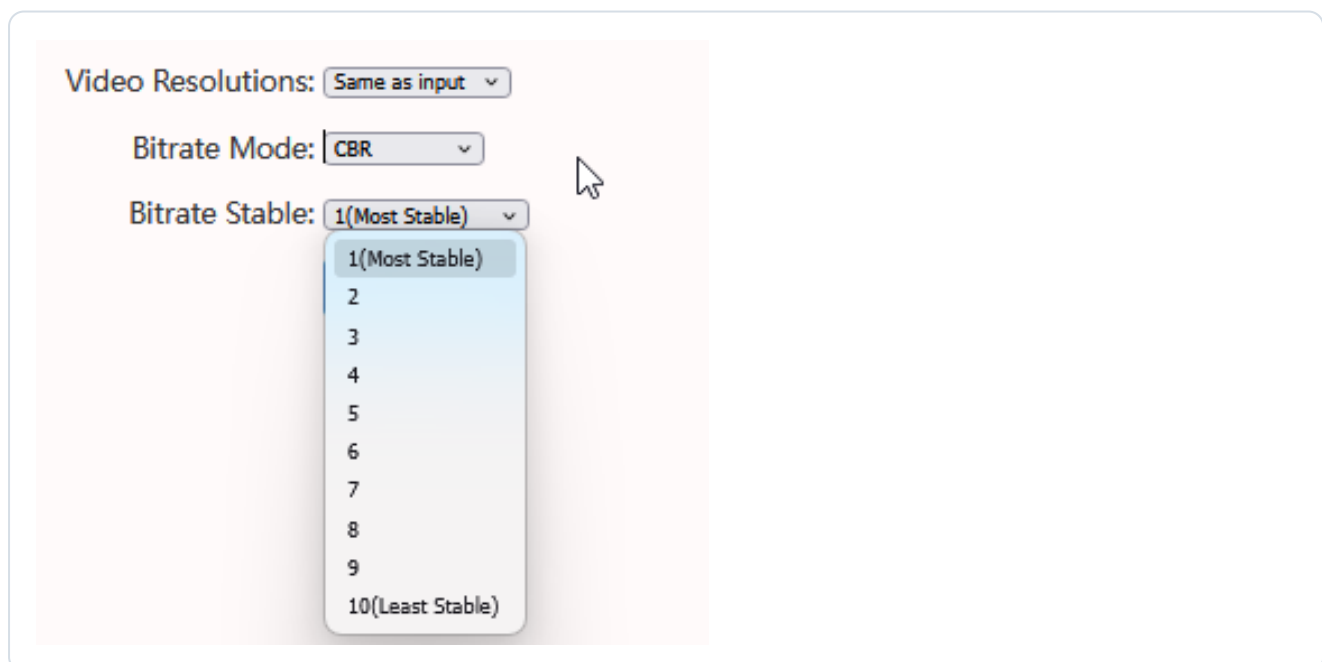


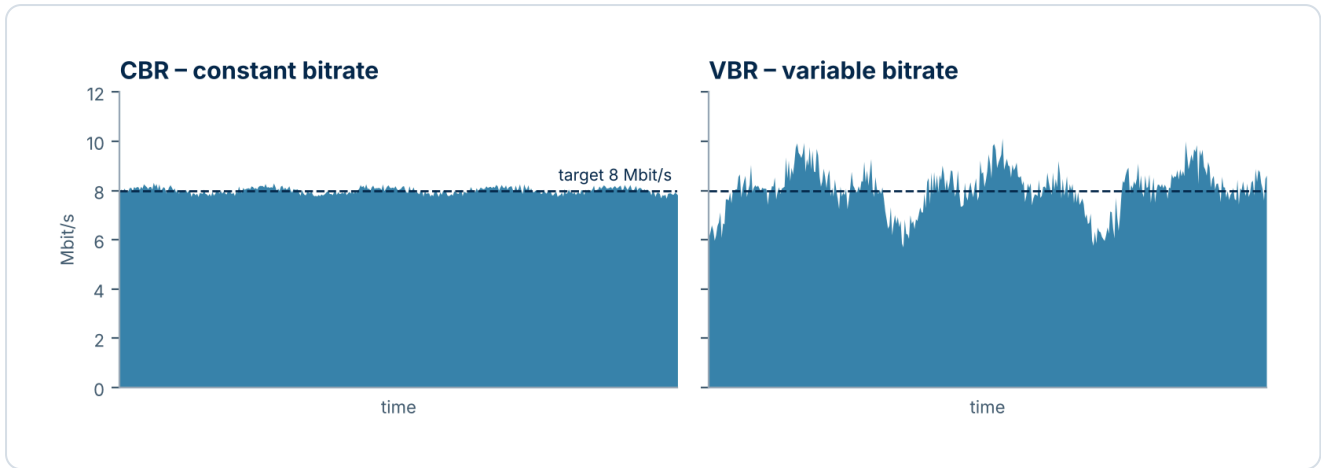
The S6L55M chipset supports only the Main and High profiles of H.264. H.265 has a single profile, which cannot be changed:



A good overview of H.264 profiles and levels: blog.mediacoderhq.com/h264-profiles-and-levels. High Efficiency Video Coding (HEVC, H.265, MPEG-H Part 2) is the successor of Advanced Video Coding (AVC, H.264, MPEG-4 Part 10). See also [ITU-T H.265](#) and [Wikipedia: High Efficiency Video Coding](#).

Bitrate mode





CBR keeps the bitrate stable and predictable, which suits live streaming and platforms that expect a steady ingest bitrate. VBR adapts the bitrate to the scene complexity and gives better quality per megabyte, which suits on-demand content and uploads. The encoder offers several quality levels to match your requirements. Background: antmedia.io/cbr-vs-vbr.

Strong CBR is mainly used when IP SPTS streams feed DVB multiplexers and modulators. It also inserts null packets (PID 8191 decimal) into the stream. In combination, the PCR settings may need adjusting for DVB IP receivers – by DVB standard, the inputs of headend multiplexer-modulators are UDP/RTP multicast streams.

TS, multicast and audio settings

Multicast, null packets, PCR and DVB tables for IPTV and DVB headends, plus the common audio settings.

IRENIS / BLANKOM · Quick Start Manual · Ralf Riedel, Director Technical Sales & Engineering, IRENIS GmbH

In this part TS and multicast settings Audio

KEY POINTS

- Null packet insertion: use 20 %; PCR interval max. 40 ms for DVB IP receivers.
- Select Conform to System B (DVB) when the stream feeds a DVB multiplexer.
- Audio settings are common to all streams; codec and audio bitrate must match.

TS and multicast settings

These settings are the most important ones for IPTV systems and receivers:

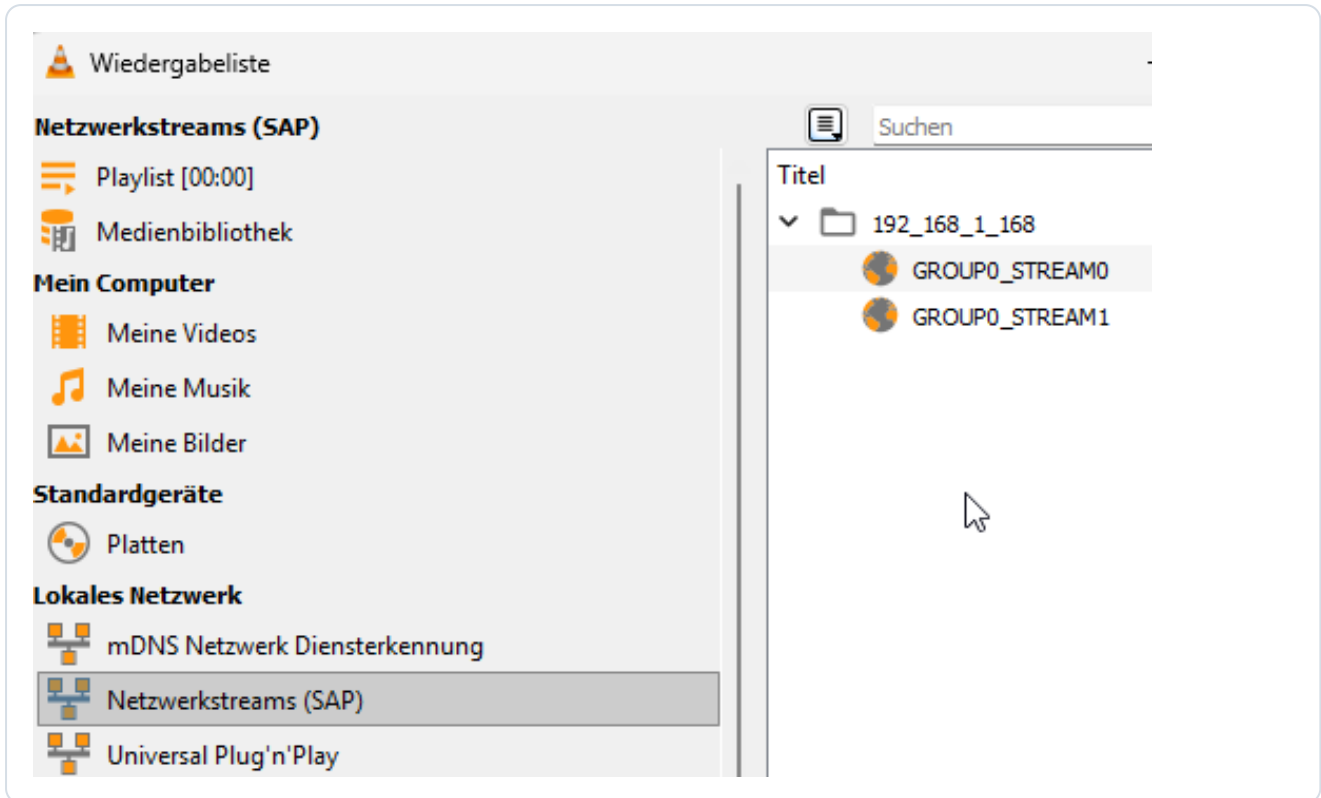
Encoding **TS/Multicast** RTSP RTMP(S) SRT WebRTC TRTC HLS MP4/FLV/Other

• Multicast address can also be entered in the broadcast unicast address field. The system will automatically detect it.
 • If VLC cannot play multicast, please check whether the computer has multiple network cards and try switching to another one or disabled the others.
 • Multicast SAP name is visible on supported devices (e.g., VLC playlist → Local Network).

TS URL: Enable
 Multicast IP: Enable
 Multicast Port: [1-65535]
 Multicast SAP Name:

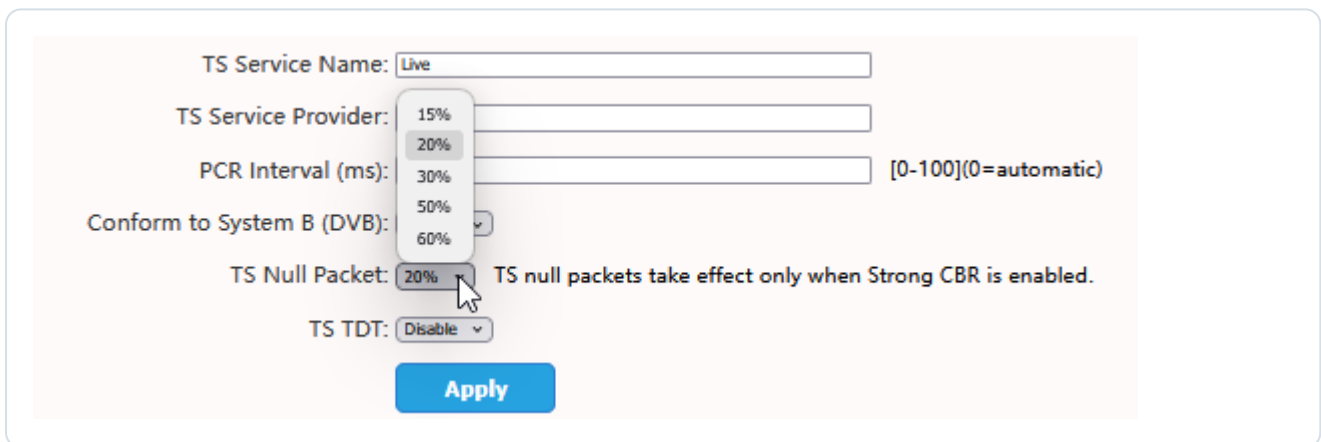
- When streaming multicast, your managed (Layer 3) switches must support IGMP.
- Multicast IP addresses must always be unique in a network. Choose port numbers according to IANA: [IPv4 multicast address space](#) and a list of [common ports](#).
- SAP/SDP (Session Announcement Protocol) announces the multicast streams in the network and makes them easy to find: [Wikipedia: Session Announcement Protocol](#).

Example in VLC (you can also save the list as a playlist):

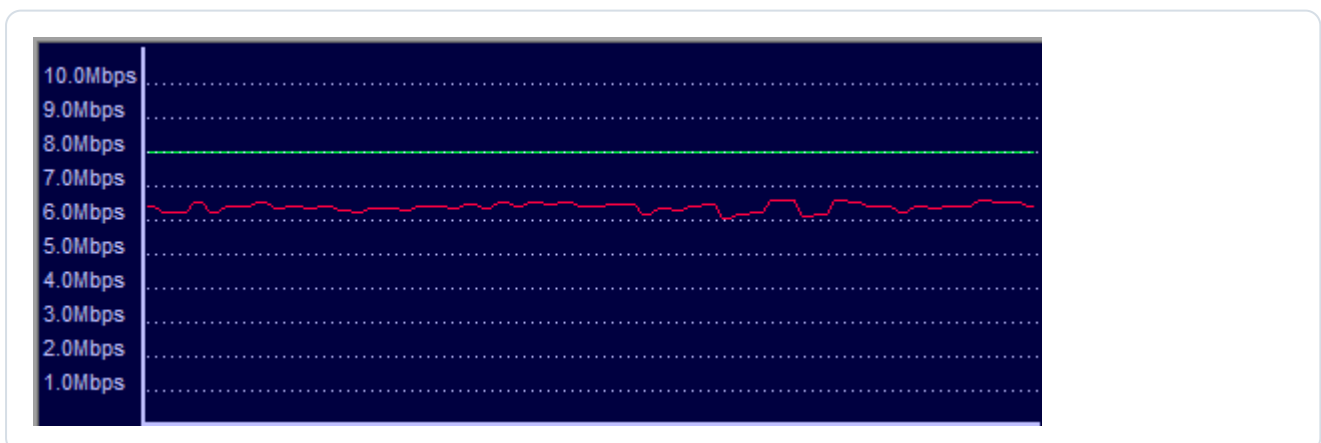


Click an entry to open the stream.

Null packet insertion



Use 20 %. Example of a CBR stream filled up with null packets to bitrate + 20 %, giving 8 Mbit/s:



The content is nearly constant; fluctuations are normal for moving pictures.

PCR interval

For DVB IP receivers the PCR interval matters: a maximum of 40 ms is recommended for DVB IP transport streams.

A screenshot of a software interface for configuring PCR settings. It features three input fields: 'TS Service Provider' with the value 'Encoder', 'PCR Interval (ms)' with the value '0', and 'Conform to System B (DVB)' with a dropdown menu set to 'Disable'. To the right of the PCR interval field is a range indicator '[0-100](0=automatic)'. A mouse cursor is pointing at the 'Conform to System B (DVB)' dropdown.

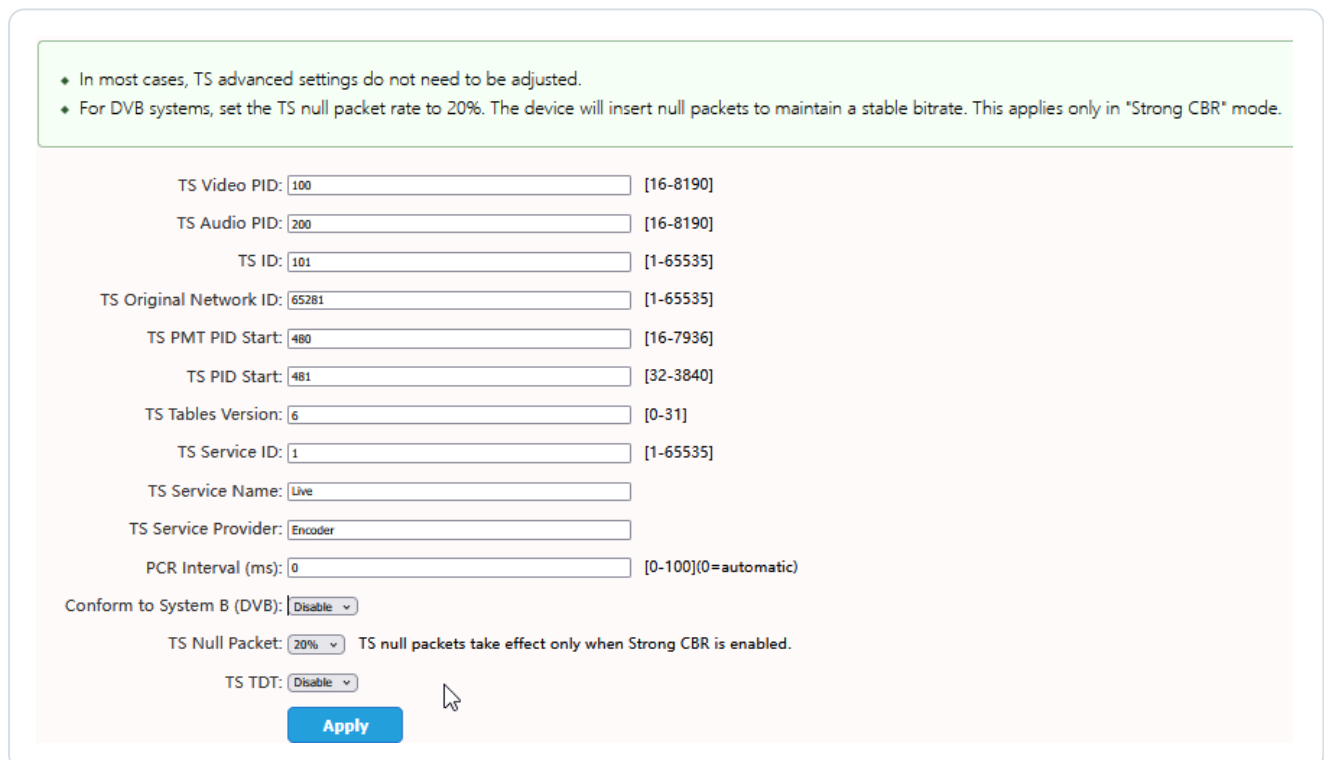
If a DVB IP receiver has problems, try adjusting the PCR settings.

Conform to System B (DVB)* should be selected when the stream feeds a DVB multiplexer; the required PSI/SI table structure is then generated accordingly. From the FFmpeg documentation (ffmpeg.org/ffmpeg-formats.html), the mpegts flags are:

- **resend_headers** – re-emit PAT/PMT before writing the next packet;
- **latm** – use LATM packetisation for AAC;
- **pat_pmt_at_frames** – re-emit PAT and PMT at each video frame;
- **system_b** – conform to System B (DVB) instead of System A (ATSC).

DVB tables

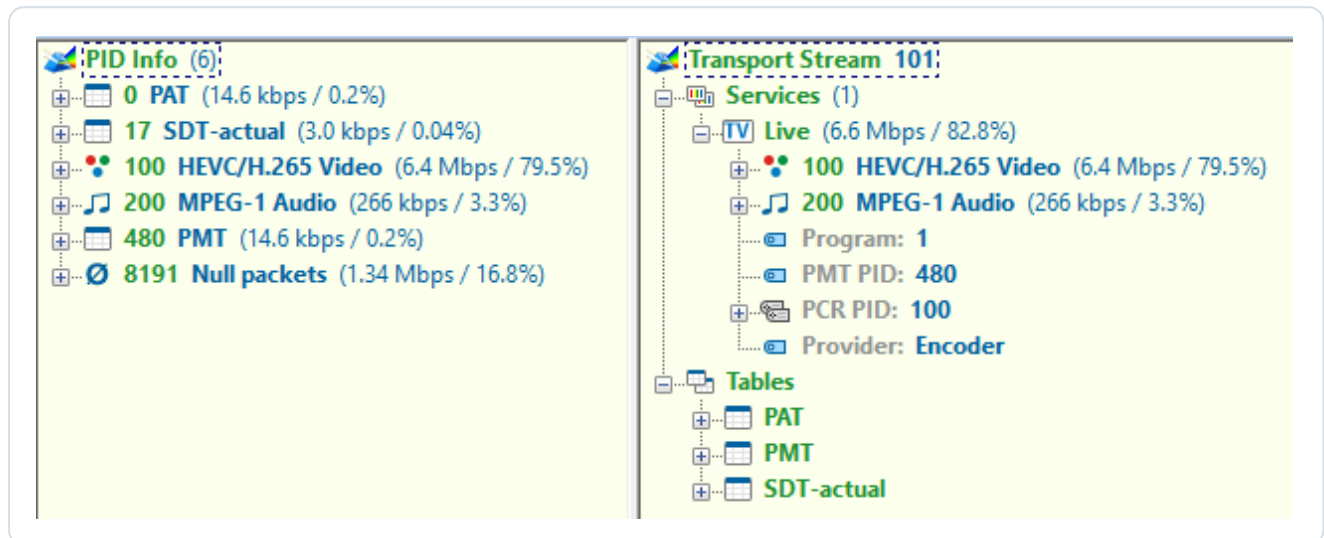
Changing these streaming parameters requires knowledge of the DVB tables:

A screenshot of a software interface for configuring DVB tables. At the top, a green box contains two informational notes: 'In most cases, TS advanced settings do not need to be adjusted.' and 'For DVB systems, set the TS null packet rate to 20%. The device will insert null packets to maintain a stable bitrate. This applies only in "Strong CBR" mode.' Below this, there are multiple input fields for various DVB parameters: 'TS Video PID' (100, range [16-8190]), 'TS Audio PID' (200, range [16-8190]), 'TS ID' (101, range [1-65535]), 'TS Original Network ID' (65281, range [1-65535]), 'TS PMT PID Start' (480, range [16-7936]), 'TS PID Start' (481, range [32-3840]), 'TS Tables Version' (6, range [0-31]), 'TS Service ID' (1, range [1-65535]), 'TS Service Name' (Live), 'TS Service Provider' (Encoder), 'PCR Interval (ms)' (0, range [0-100](0=automatic)), 'Conform to System B (DVB)' (Disable), 'TS Null Packet' (20%, with a note 'TS null packets take effect only when Strong CBR is enabled.'), and 'TS TDT' (Disable). A blue 'Apply' button is at the bottom right. A mouse cursor is pointing at the 'Apply' button.

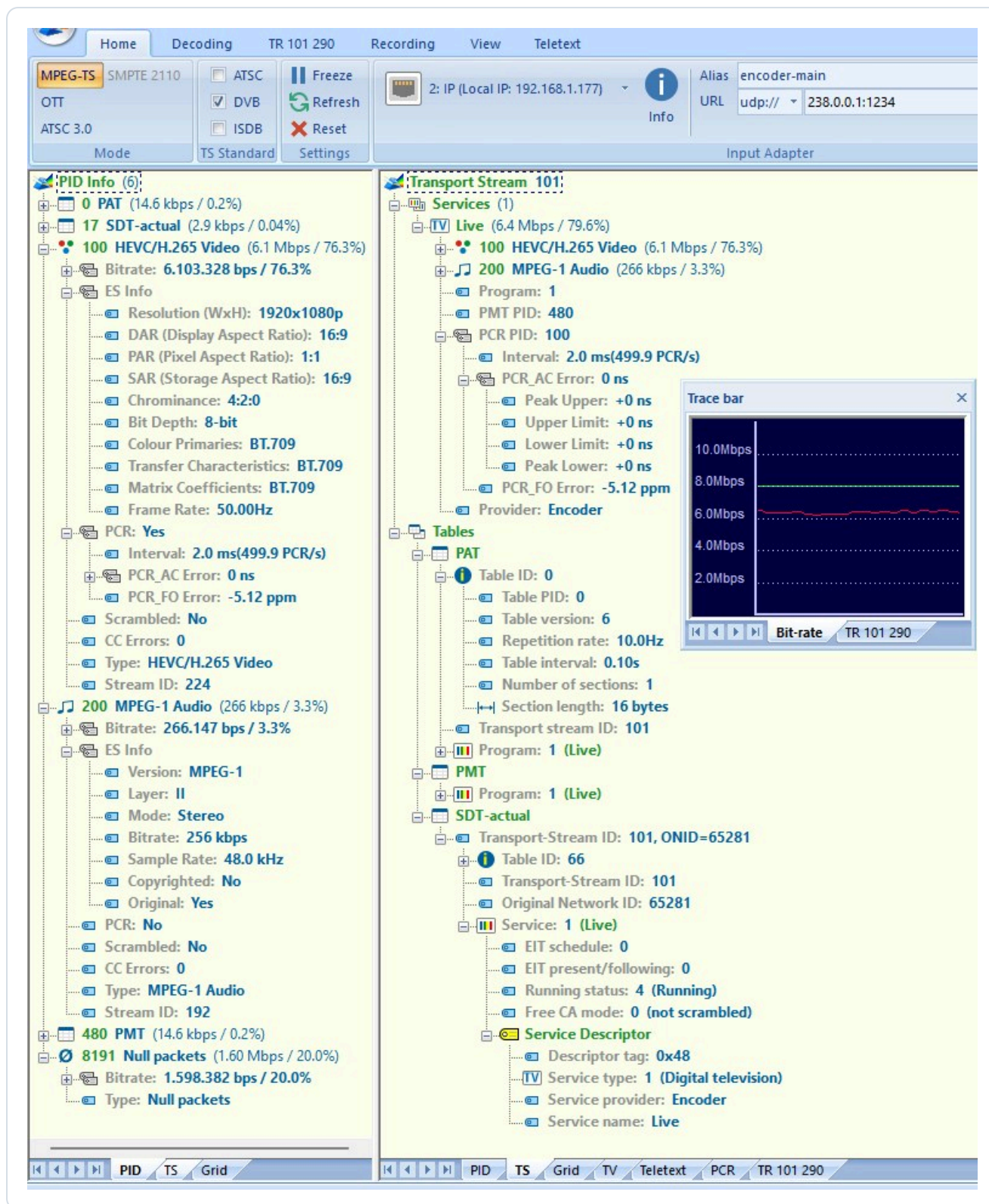
These entries form a valid table structure for multicast and unicast streams with their PIDs. Do not change the table version unless you know what you are doing.

- PAT (Program Association Table) – mandatory;
- SDT (Service Description Table);
- video PID and audio PIDs – a stream can carry several audio tracks, for example for multiple languages or Dolby.

These tables contain the essential information about the stream and its components – TS ID, ONID, references to audio and video and the codecs used.



PIDs 0, 17, 18 (EIT) and other DVB PIDs are reserved and cannot be changed. A DekTec analyser makes the structure visible (set it to decimal PID numbers instead of hexadecimal):



The SDT above shows the values from the encoder: ONID, TS ID, service ID, types and the service name. The PCR is carried on the video PID; with Strong CBR and 20 % null packets, the PCR interval in auto mode is 2 ms – very good.

VBR for comparison

With the encoder set to VBR:

Video Codec:

FPS:

GOP:

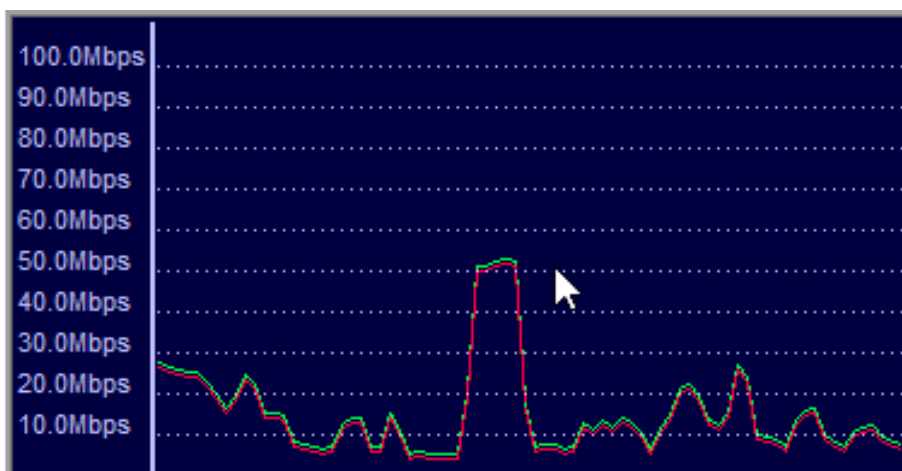
Bitrate (kbps):

Image Quality Levels:

Video Resolutions:

Bitrate Mode:

the "Best" setting shows strong bitrate fluctuations:



TS over HTTP

The TS part of this menu

TS URL:

Enable

Multicast IP:

Enable

applies to the unicast transport stream in HTTP mode, which is handled over HTTP/TCP:

Real-time FPS: 50.10

TS URL:

HLS TS URL: Disabled

Audio

Before the other unicast streams, here are the audio settings – they are common to the main and sub streams:

Status

Encoder

Main Stream

Substream1

Substream2

Substream3

Video

Audio

Advanced

OSD

System

Audio

ONVIF Audio

◆ Do not set the Digital Volume Gain too high, as this may cause distortion or introduce noise. In most cases, a gain of 0 is sufficient. Adjust the front-end audio volume to control the overall sound level.

Audio Input: Digital

Sampling Rate: Same as input sample rate

Audio Codec: MP2

Audio Channel: L+R

Audio Bitrate (bps): 256000 [64000~320000]

Digital Volume Gain (dB): 0 [-20~10]

Denoise: Disable

Denoise (dB): 15 [1~100]

G711 Over PTE: Disable

Apply

Most models have external 3.5 mm stereo jacks for analogue audio instead of the audio embedded in SDI or HDMI. VGA and DisplayPort encoders always use the external inputs. For SDI and HDMI we recommend the digital input, as in the default settings.

Audio Input: Digital

Sampling Rate: Same as input sample rate

Audio Codec: MP2

Audio Channel: L+R

Audio Input: Digital

Sampling Rate: Same as input sample rate

Audio Codec: MP2

Audio Channel: L+R

We recommend following the input (HDMI/SDI):

Audio Codec: MP2

Audio Channel: L+R

Audio Bitrate (bps): 256000 [64000~320000]

Digital Volume Gain (dB): 0 [-20~10]

Denoise: Disable

Audio Codec: MP2

Audio Channel: L+R

Audio Bitrate (bps): 256000 [64000~320000]

Digital Volume Gain (dB): 0 [-20~10]

Denoise: Disable

Several audio codecs are available. For DVB, MPEG-1 Layer 2 stereo (MP2) or AC3 is usual; AAC works, but the extended AAC+ and AAC++ must be checked with the client you use. Each codec has its own range of audio bitrates:

Audio Codec: AAC++

Audio Channel: L+R

Audio Bitrate (bps): 256000 [14000~64000]

Bitrate and codec must match when you change them – 256,000 in the example above is outside the AAC++ range. The web interface shows a hint:

Sampling Rate: Same as input

Audio Codec: AAC++

Audio Channel: L+R

Audio Bitrate (bps): 256000

Digital Volume Gain (dB): 0

Denoise: Enable

192.168.1.168

Audio Bitrate must be an integer between 14000 and 64000.

☐ Weitere Aufforderungen von 192.168.1.168 verbieten

OK

Volume and noise reduction

Digital Volume Gain (dB): 0 [-20~10]

Denoise: Enable

Denoise (dB): 15 [1~100]

G711 Over PTE: Disable

Apply

As the hint in the web interface says, raising the digital volume can cause distortion. Balance it with the audio level of your source (HDMI, analogue or SDI) and use noise reduction if needed.

ONVIF support is a special case for NVRs, which use ONVIF to monitor and control cameras – our encoders can act like a streaming camera. More in the tutorials on www.blankom.de.

Audio
ONVIF Audio

◆ When connecting to an NVR, if the RTSP stream uses G711 encoding, please select the "Enable and resample with 8 kHz" option.

G711 Over RTSP: Disable

G711: G711A

Apply

Lip sync

Set the audio lip-sync strategy to automatic in the ADVANCED menu:

Video
Audio
Advanced
OSD

Audio Only: Disable
Encode the audio only.

AV Sync Strategy: Auto

No Signal Pic Only: Auto

"Auto"
"Resample"

No Signal: Display Picture
Display Picture - Displays the preset "No Signal" image when no input signal is detected.

Audio Delay (ms): 0 [-2000,2000]

When set to resample, the audio may drift over time and can be corrected manually by -2,000 to +2,000 ms.

SRT, HLS, RTMP, RTSP and ONVIF

Caller and listener roles for SRT, platform streaming with HLS and RTMP, RTSP/HTTP, ONVIF and logging.

IRENIS / BLANKOM · Quick Start Manual · Ralf Riedel, Director Technical Sales & Engineering, IRENIS GmbH

In this part SRT listener and caller modes HLS and RTMP RTSP and HTTP streaming ONVIF
 Logging with Loki Other settings

KEY POINTS

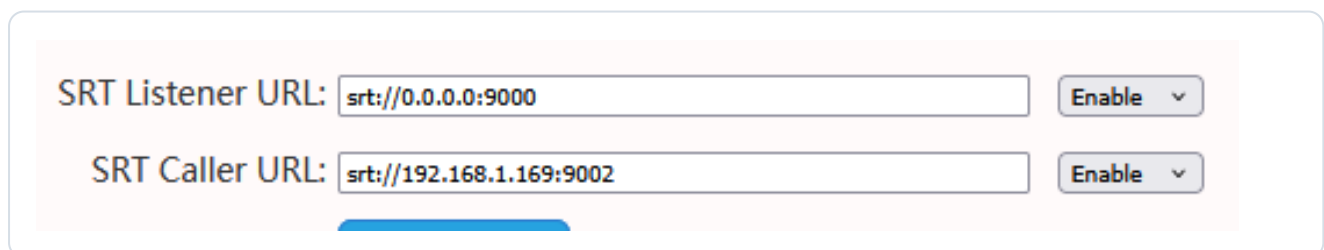
- SRT: one side must be caller, the other listener; VLC works only as caller.
- HLS adds the most latency of all protocols because of its segments.
- ONVIF 2.8 and later; stream passwords use the encoder credentials.

SRT listener and caller modes

VLC supports only the caller mode: it calls the encoder (listener) on demand with the simple URL **srt://<IP address>:9000** (default for the main stream) once SRT is enabled.

In the opposite direction the encoder pushes the stream: enter the target address – for example the decoder IP address and port – in the encoder web menu. The receiver, such as an HDD decoder or our BIG-1050/1100X protocol converter, must open that port and wait for the stream pushed by the sender, as in FFmpeg.

Encoder settings – push mode; encoder 192.168.1.168, decoder 192.168.1.169:



The screenshot shows a web interface for SRT configuration. It has two main sections: 'SRT Listener URL' and 'SRT Caller URL'. Each section contains a text input field and a button labeled 'Enable' with a dropdown arrow. The 'SRT Listener URL' field contains the text 'srt://0.0.0.0:9000'. The 'SRT Caller URL' field contains the text 'srt://192.168.1.169:9002'. Below the 'SRT Caller URL' section, there is a blue progress bar or indicator.

As listener, the encoder needs only 0.0.0.0* as IP address: it automatically uses its own address for the caller (the receiving decoder). Choose a port that does not collide with other ports in use.

Check the status page:

Status

Encoder

OSD

System

RTSP URL: rtsp://192.168.1.168/0
RTMP URL: Disabled
RTMP(S) Push URL0: Disabled
RTMP(S) Push URL1: Disabled
RTMP(S) Push URL2: Disabled
Multicast URL: udp://@238.0.0.1:1234
SRT Listener URL: srt://192.168.1.168:9000
SRT Caller URL(Connected):srt://192.168.1.169:9002
HLS Push URL:Disabled
TRTC Room: Disabled
Icecast Push URL:Disabled
[Preview \(HTML5\)](#)

Pull the stream with a receiver such as VLC (caller) from the encoder (listener):

Medien öffnen

Datei
Medium
Netzwerk
Audio

Netzwerkprotokoll
Bitte geben Sie eine Netzwerkadresse ein:
srt://192.168.1.168:9000
http://www.example.com/stream.avi
rtsp://@:1234

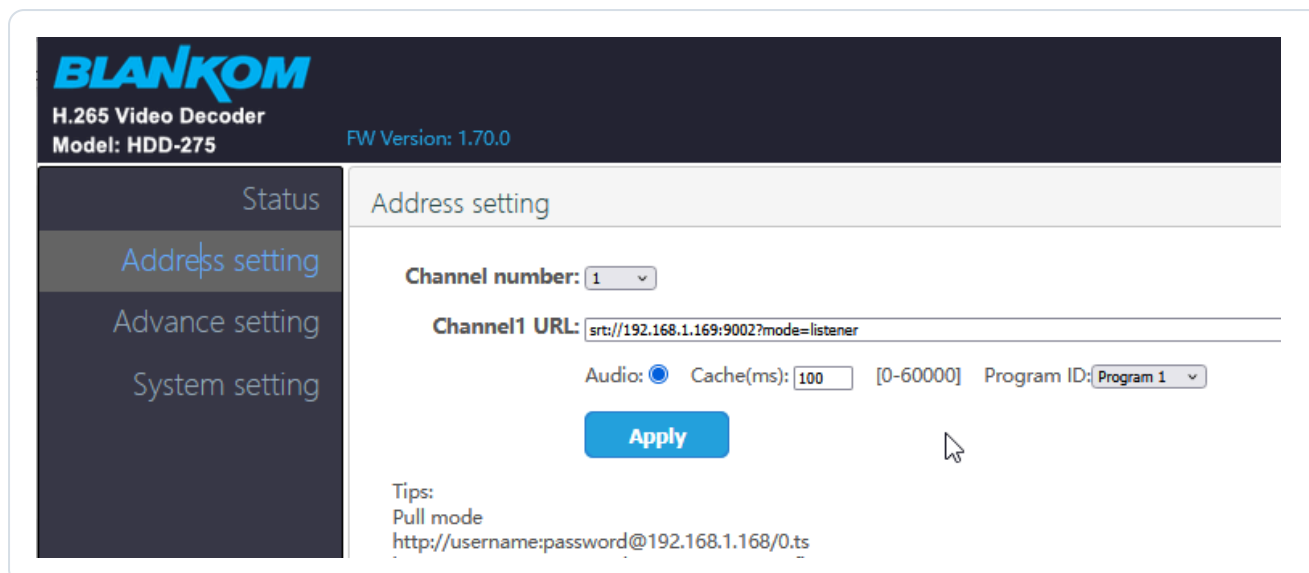
srt://192.168.1.168:9000 - VLC media player

Medien
Wiedergabe
Audio
Video
Untertitel
Werkzeuge
Ansicht
Hilfe

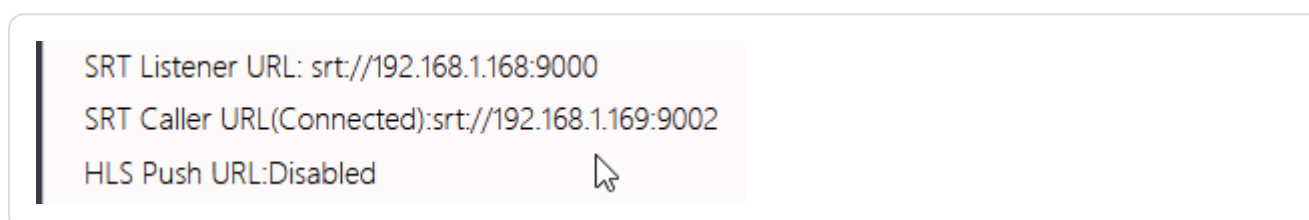
08:45
moma
Olympia: Deutsche Biathleten in der Krise

00:07
73%
00:00

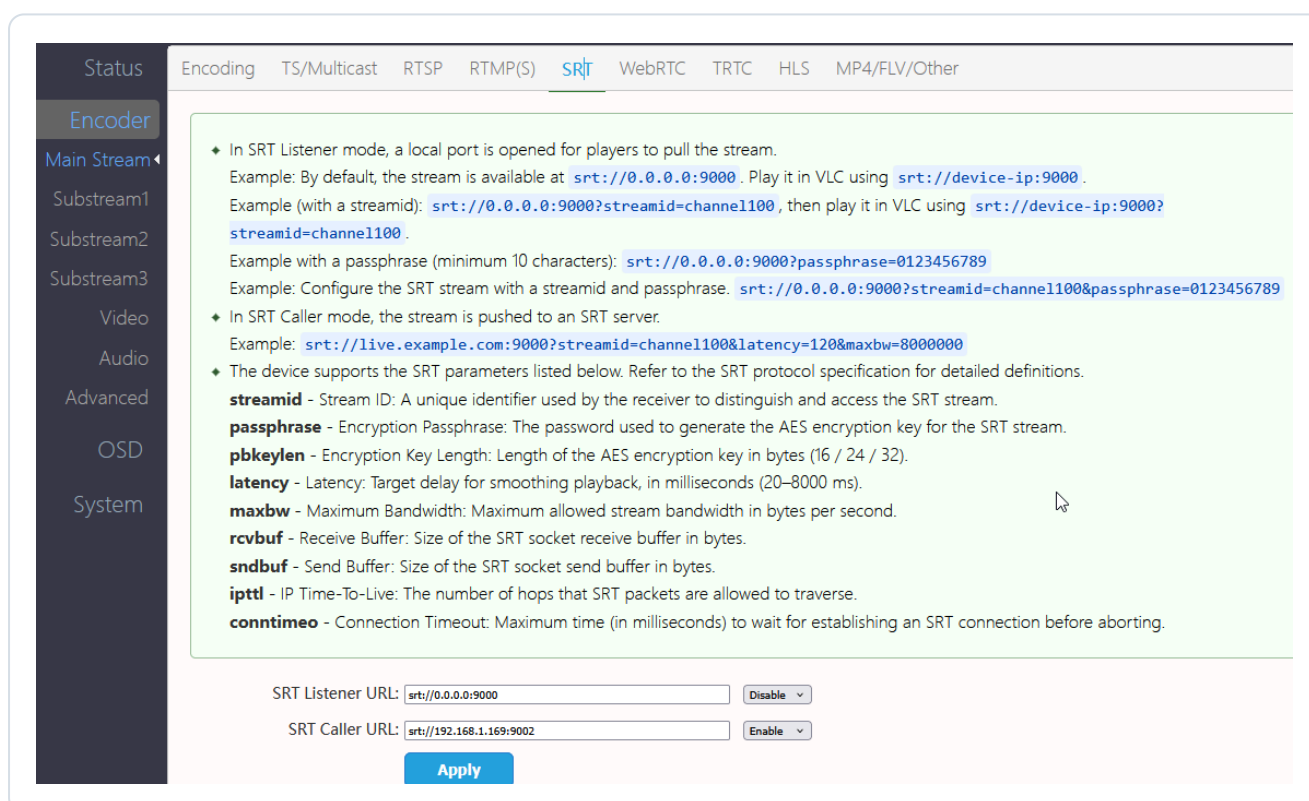
VLC supports only this mode, while the encoder supports both. Push mode – the decoder listens for the incoming stream from the encoder:



The encoder status changes from "not connected" to "connected" once the handshake succeeds:



Decoder settings (IP 192.168.1.169) – follow the hints in the web menu:



Both units can work as caller or listener. Always consider the direction from the source and from the destination: they cannot both be caller or both be listener. If the streamer is the listener, the receiver must be the caller, and vice versa.

HLS and RTMP

HLS and RTMP(S) support push and pull modes and are mostly used for streaming to internet video platforms such as YouTube or Vimeo. Clarify the settings, tokens, certificates or user names and passwords with the media server operator before you configure them:

- ♦ PUSH URL 0–2 are streaming addresses. They can push to RTMP(S) / RTSP servers.
- ♦ This device has a built-in RTMP server that supports H.264 streaming.
To view the stream in VLC, open the URL: `http://device-IP/live/stream name` to play the video.

RTMP URL:	/0	Disable ▾
RTMP(S)/RTSP PUSH URL0:	rtmp://your_rtmp_sever0.com/live/0	Disable ▾
RTMP(S)/RTSP PUSH URL1:	rtmp://your_rtmp_sever1.com/live/0	Disable ▾
RTMP(S)/RTSP PUSH URL2:	rtmp://your_rtmp_sever2.com/live/0	Disable ▾

- ♦ When HLS TS or MP4 is enabled, the device buffers segments in memory according to the duration and count set in Advanced settings. Setting both to 3 helps reduce RAM usage.
- ♦ The HLS publish URL sends the stream to servers such as YouTube. Paste the URL in this field.

HLS TS URL:	/0.m3u8	Disable ▾
HLS MP4 URL:	/0_mp4.m3u8	Disable ▾
HLS PUSH URL:	https://a.upload.youtube.com/http_upload_hls?cid=1111-1111-	Disable ▾

Note that HLS is one of the protocols that add the most latency, because of its segment-based architecture. The HLS values can be adjusted in the advanced settings:

HLS Segment Duration (s):	5	[3-20]
HLS Segment Quantity:	3	[3-20]

RTSP and HTTP streaming

RTSP and HTTP are the oldest streaming protocols; both are handled over TCP, and RTSP can carry RTP over UDP. They are not explained in detail here – see the tutorials at www.blankom.de/tutorials.html and www.blankom.de/anleitungen-deutsch.html.

- ◆ Enable - The actual transport (UDP or TCP) is chosen by the client. For example, select "RTP over RTSP (TCP)" in VLC to use TCP.
- ◆ Enable (TCP only) - Forces the device to use TCP.
- ◆ UDP may occasionally drop packets on some networks. Switch to TCP if all clients support it.
- ◆ Enable (Multicast) - RTSP multicast uses 4 consecutive ports starting from the configured RTSP Multicast Port.

RTSP URL: /0

Enable

In the advanced settings, choose which encoder part is used for RTSP:

RTSP Default Stream: Main Stream

vMix Compatible: Disable

TS Over RTSP: Main Stream

Multicast Type: Substream1

Substream2

Substream3

and whether the transport content is sent as TS or as an elementary stream:

TS Over RTSP: TS

Multicast Type: ES

TS

ONVIF

ONVIF is supported in version 2.8 and later. Use an NVR, the free ONVIF Device Manager for Windows ([download ODM](#)) or camera software such as Milestone.

Audio

Advanced

OSD

System

Onvif Service: Enable

Onvif Location: city/sz

Logger Service: Disable

Loki Server Address: 192.168.1.100

Disable

Loki Server Port: 3100 [1-65500]

The location can be set and is shown by ODM. A password can be assigned:

Onvif Password:

No HTTP Password:

The same is possible for HTTP and RTSP to protect the streams; the receiver then needs the credentials to open the stream:

TS/RTSP Password:

Onvif Password:

No HTTP Password:

When enabled, the encoder user name and password also apply to the streams (default admin/admin).

Logging with Loki

To log all actions of the encoder, install a Loki server in your network and enter its address (see the screenshot above). A German explanation of Grafana and Loki on a Raspberry Pi: [Grafana Loki – Protokollierung und Überwachung](#).

Other settings

MTU Size: [500-8000]

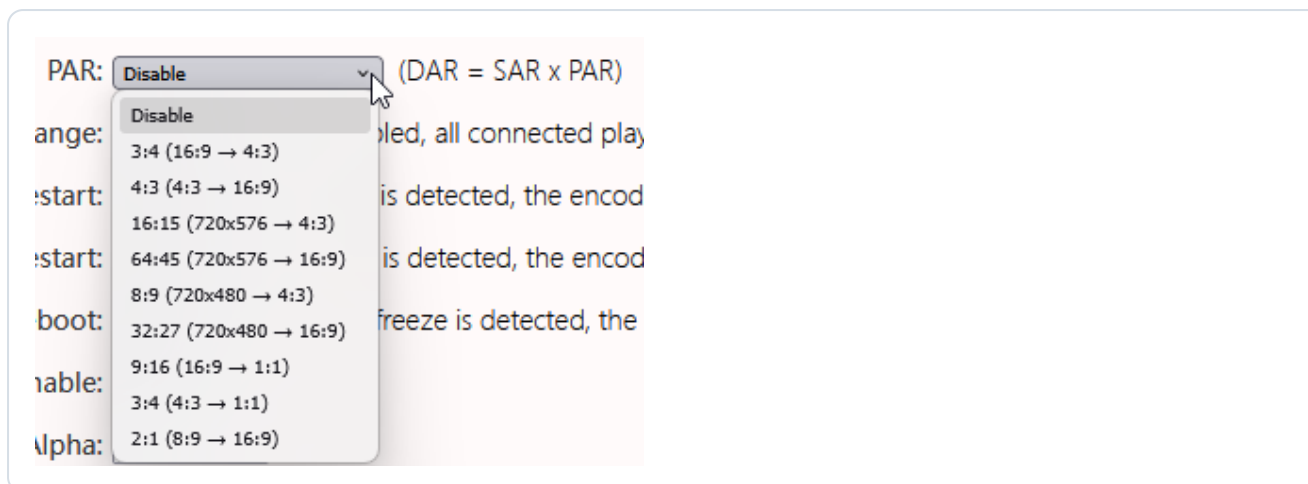
NAT Address:

Ethernet Speed:

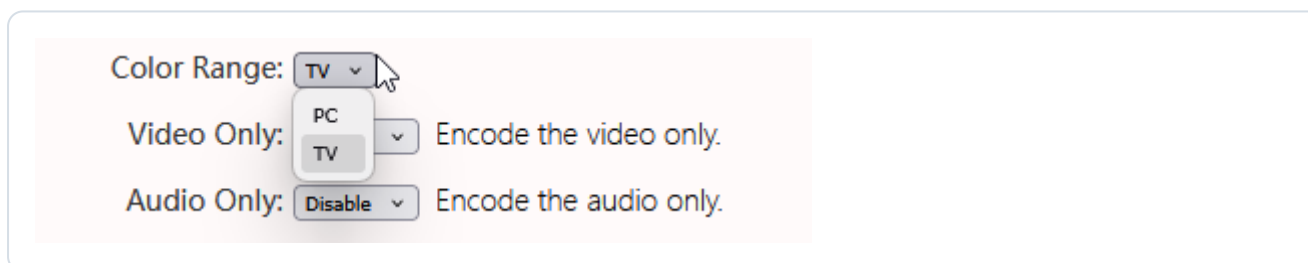
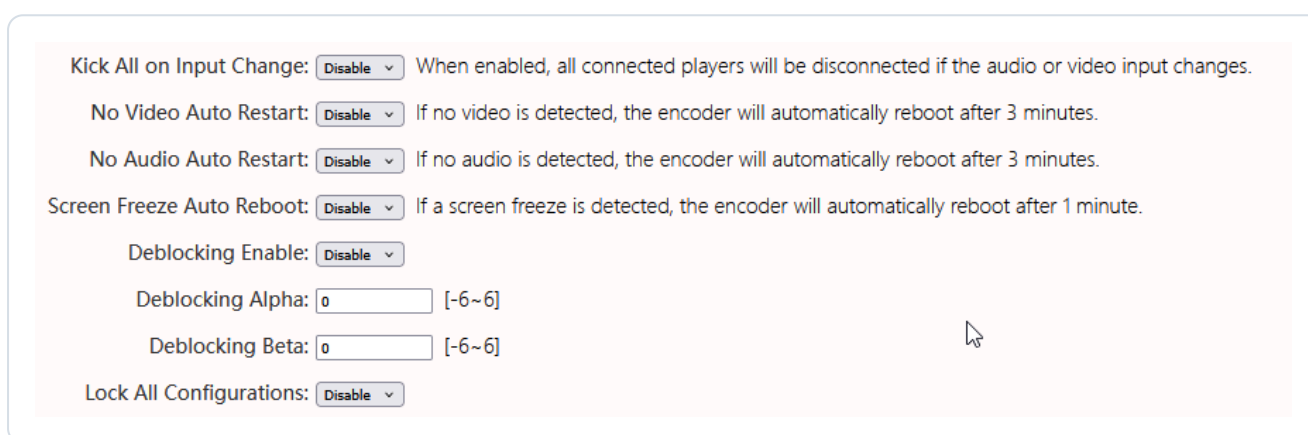
UDP TTL: [1-254]

UDP Socket Buffer Size: (0-20971520)

The sample aspect ratio can be adjusted – for example to correct the picture when a 16:9 input is downscaled to a 4:3 output resolution:



Self-explanatory:



Picture manipulation – rotation, flip/mirror and cropping:

Status

Encoder

Main Stream

Substream1

Substream2

Substream3

Video

Audio

Advanced

OSD

System

Video Input

◆ Rotation is available only when the input format is YUV420.

Video Rotation:

0°

Flip / Mirror:

Disable

Disable

Mirror

Flip

Flip and Mirror

Video Crop:

Video Crop X Coordinate:

[0,1920]

Video Crop Y Coordinate:

0

[0,1080]

Video Crop Width (pixels):

0

[0,1920]

Video Crop Height (pixels):

0

[0,1080]

Monochrome:

Disable

Apply

Quick Start Manual · HDE / SDE / VDE / DPE encoders and HDD decoders · Version 2.0 · © BLANKOM, IRENIS GmbH

54

HDD decoder output and HDD-276 transcoding

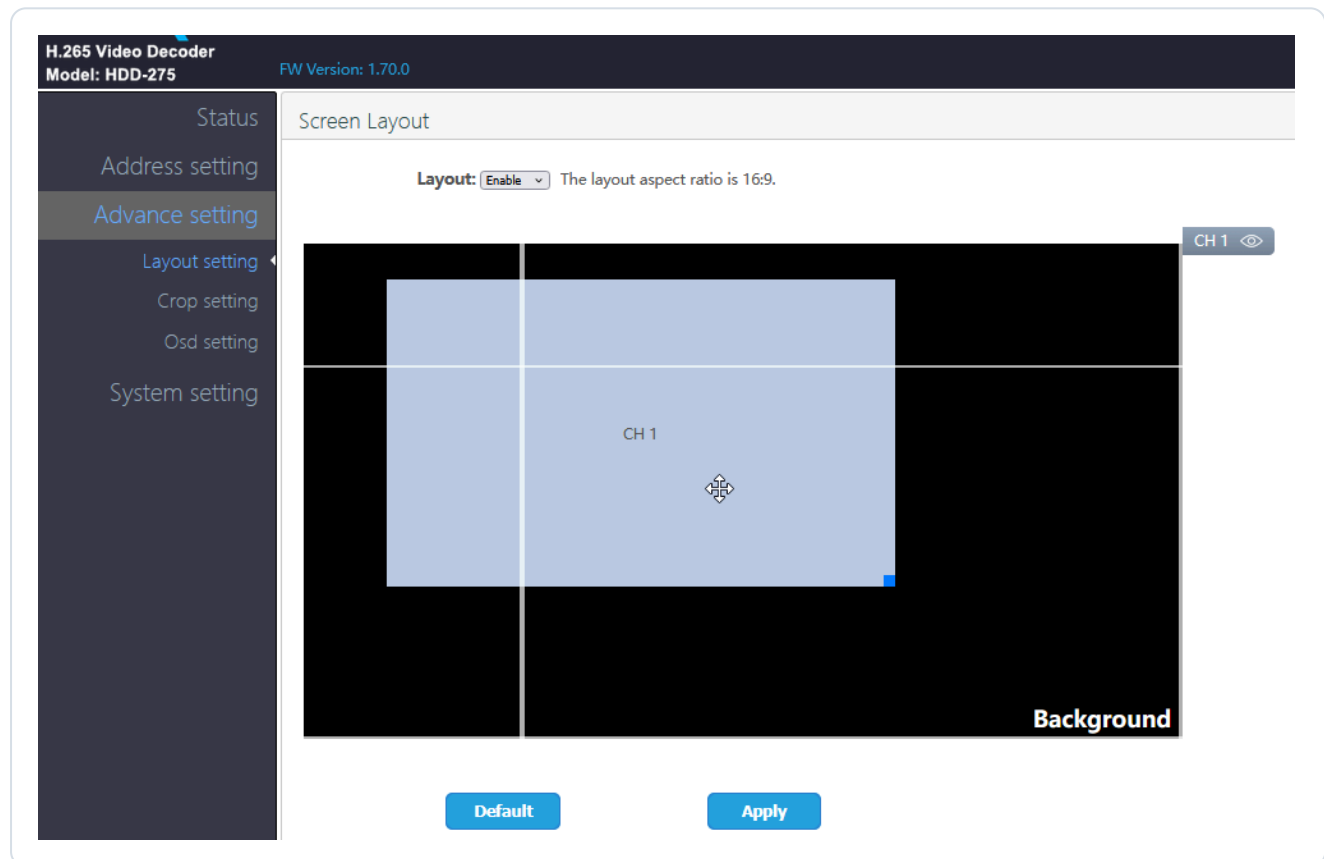
Output layout, mosaic and cropping on the HDD decoders, and transcoding with the HDD-276.

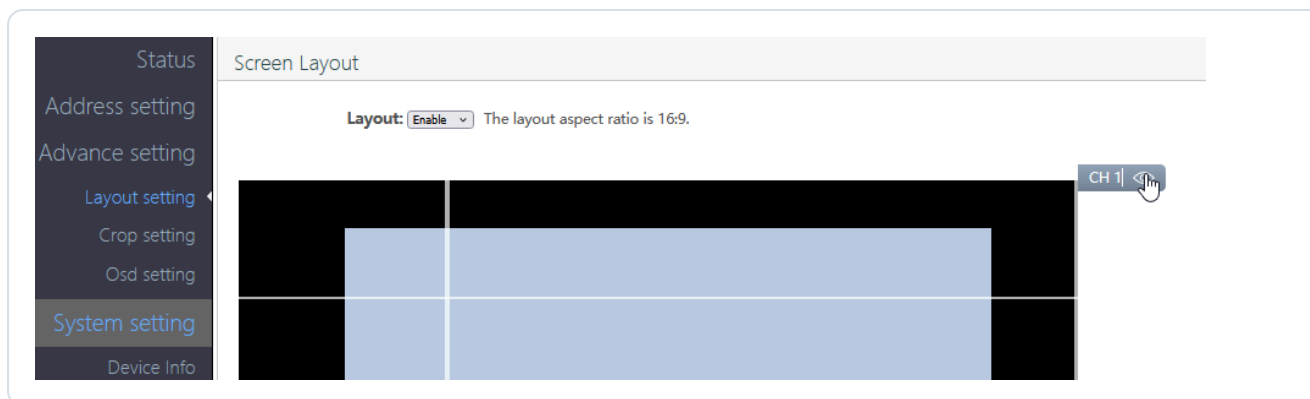
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In this part [HDD decoders: output settings](#) [HDD-276 decoder and transcoder](#)

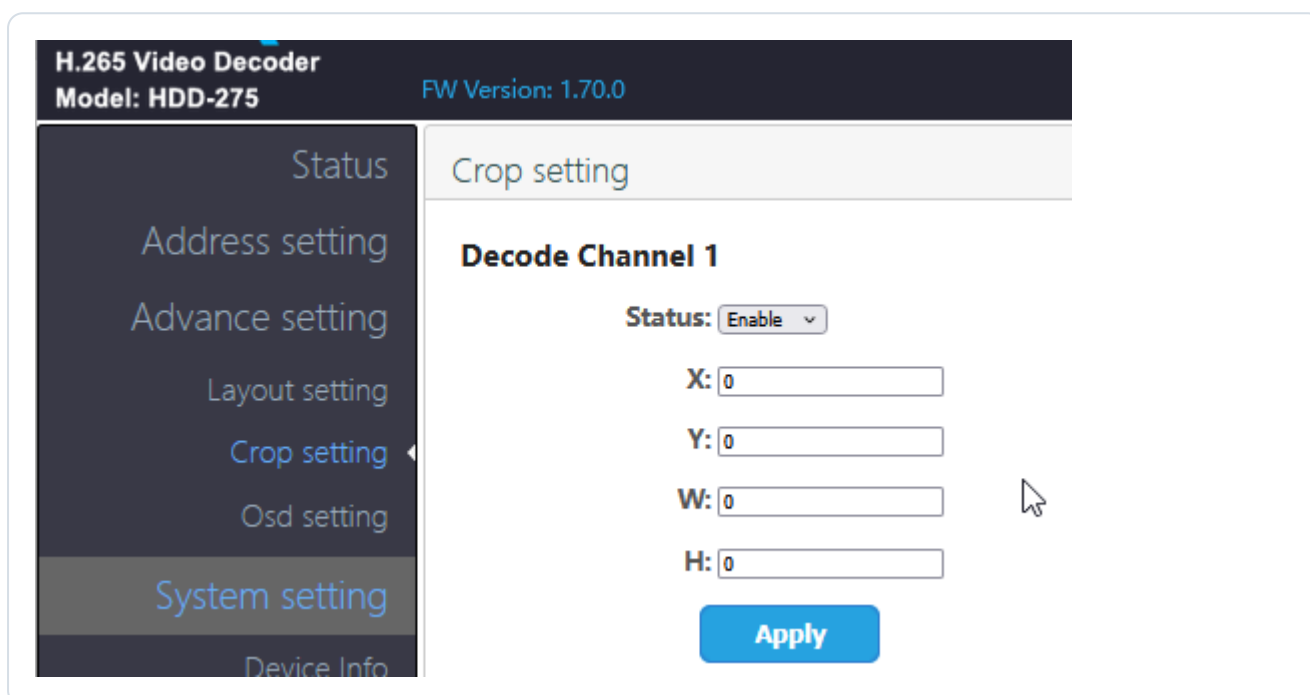
HDD decoders: output settings

On the HDD decoders you can set the picture output individually:





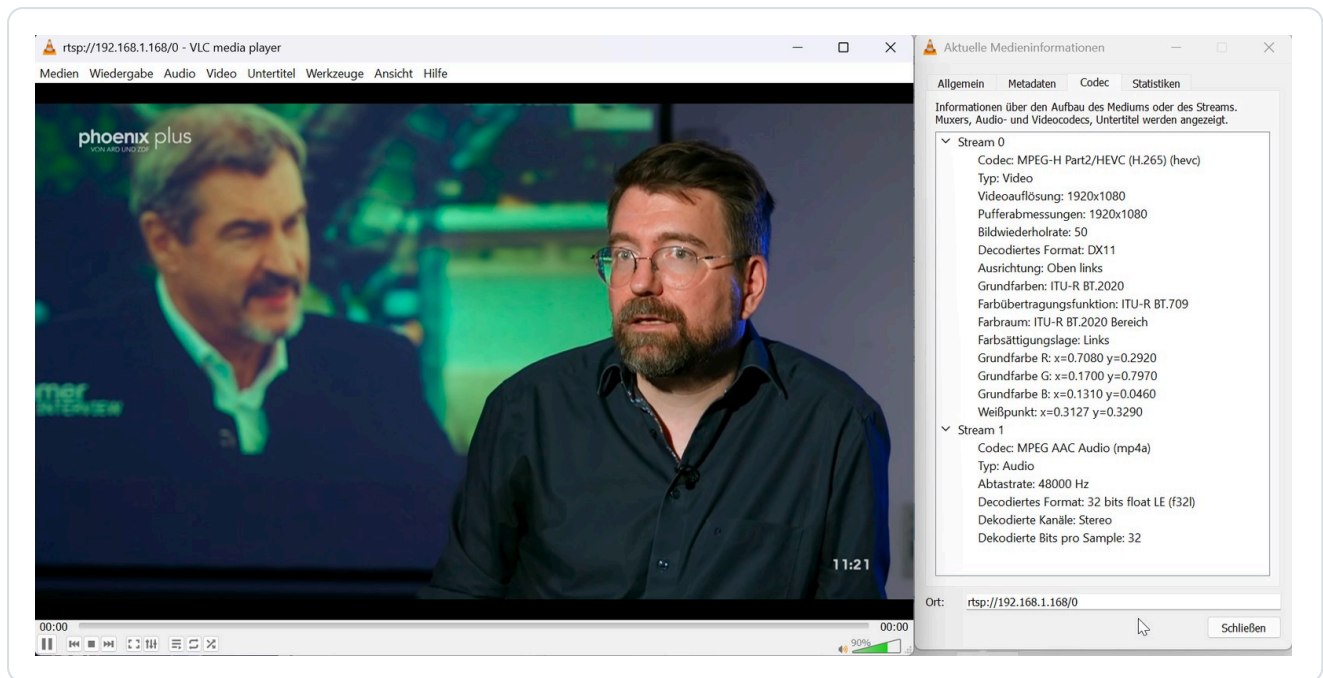
When you use four inputs in mosaic mode, you also choose where each input stream is placed on the output, and you can crop the pictures:



HDD-276 decoder and transcoder

The HDD-276 decodes up to four input streams into a 4K mosaic on its HDMI output, and it can transcode streams to an IPTV network output.

Input from the encoder:



Transcoding settings:

Status
Input stream address
Transcoding setting
Advance setting
System setting

Transcoding setting

Encoding Type: H.264 ▾

FPS: 25 [5-60]

GOP: 25 [5-300]

Bitrate(kbit): 3200 [32-100000]

Encoded Size: 1920x1080 ▾

H.264 Level: BASELINE ▾

TS URL: /0.ts **Enable** ▾

HLS URL: /0.m3u8 **Disable** ▾

FLV URL: /0.flv **Enable** ▾

RTSP URL: /0 **Enable** ▾

RTMP(S)/RTSP PUSH URL: rtmp://192.168.1.169/live/ **Disable** ▾

Multicast IP: 238.0.0.1 **Enable** ▾

Multicast Port: 1234 [1-65535]

Multicast Type: UDP ▾

SRT URL Port: 9000 **Disable** ▾

SRT PUSH URL: srt://192.168.1.169:9000 **Disable** ▾

SRT pwd: 0123456789 **Disable** ▾

Apply

Status

Input stream address

Transcoding setting

Advance setting

System setting

Status

System status

Systeamtime: 2026-02-19 18:41:27 (Synchronize time to the device)

Runtime: 0000-00-00 00:21:47

CPU usage: 45%

Memory usage: 198MB/975MB

net status: local

Output format: 1080P60

Channel number: 1

Decode channel1

Decode address: rtsp://192.168.1.168/0

Decode status: normal

Decode type: H265

Decode size: 1920x1080

Frame rate(fps): 25

Bitrate(kbit): 12251

Transcode channel1

Encode type: H.264

Encode size: 1920x1080

Bitrate(kbit): 3200

TS URL: http://192.168.1.169/0.ts

FLV URL: http://192.168.1.169/0.flv

RTSP URL: rtsp://192.168.1.169/0

Multicast URL: udp://@238.0.0.1:1234

The decoder output stream is now:

The screenshot shows the VLC media player interface. The main window displays a video stream with the text "destens drei Werke" and "WISO". The media information window is open on the right, showing details for Stream 0 and Stream 1.

Stream 0:

- Codec: H264 - MPEG-4 AVC (part 10) (h264)
- Typ: Video
- Videoauflösung: 1920x1080
- Pufferabmessungen: 1920x1088
- Bildwiederholrate: 29.970030
- Dekodiertes Format: DX11
- Ausrichtung: Oben links

Stream 1:

- Codec: MPEG AAC Audio (mp4a)
- Typ: Audio
- Abtastrate: 48000 Hz
- Dekodiertes Format: 32 bits float LE (f32)
- Dekodierte Kanäle: Stereo
- Dekodierte Bits pro Sample: 32

The media information window also shows the location: rtsp://192.168.1.169/0 and a button to close the window.

New features in firmware 2.23

Daylight saving time, WebRTC preview page, advanced compression, B-frame modes and improved audio and ONVIF settings.

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In this part [Firmware 2.23: new features](#)

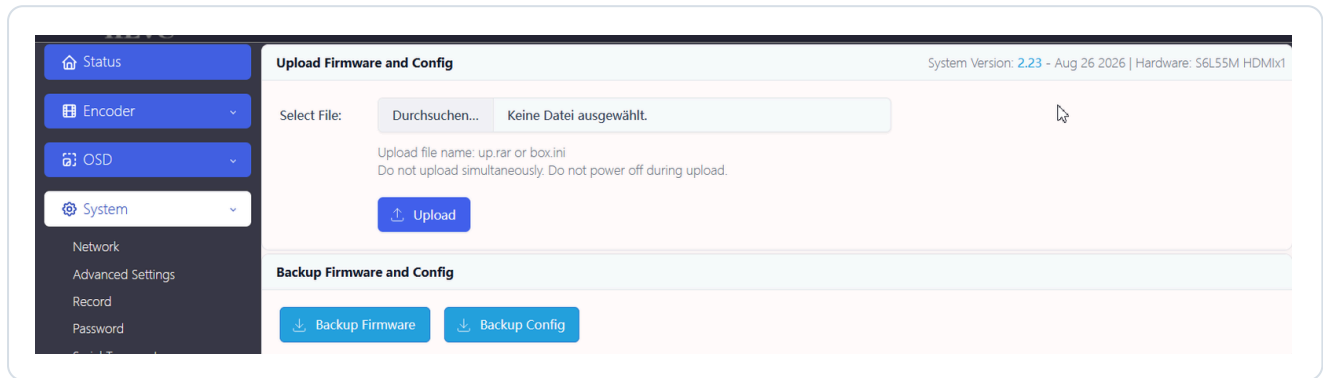
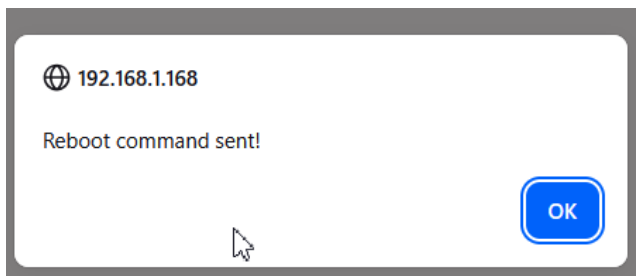
Firmware 2.23: new features

Firmware 2.23 for the S6L55M platform adds several features, including daylight saving time:

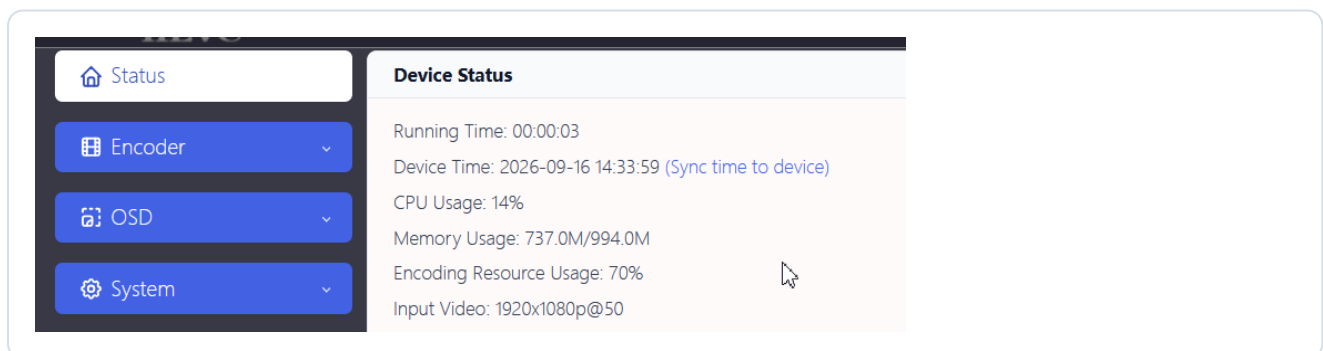
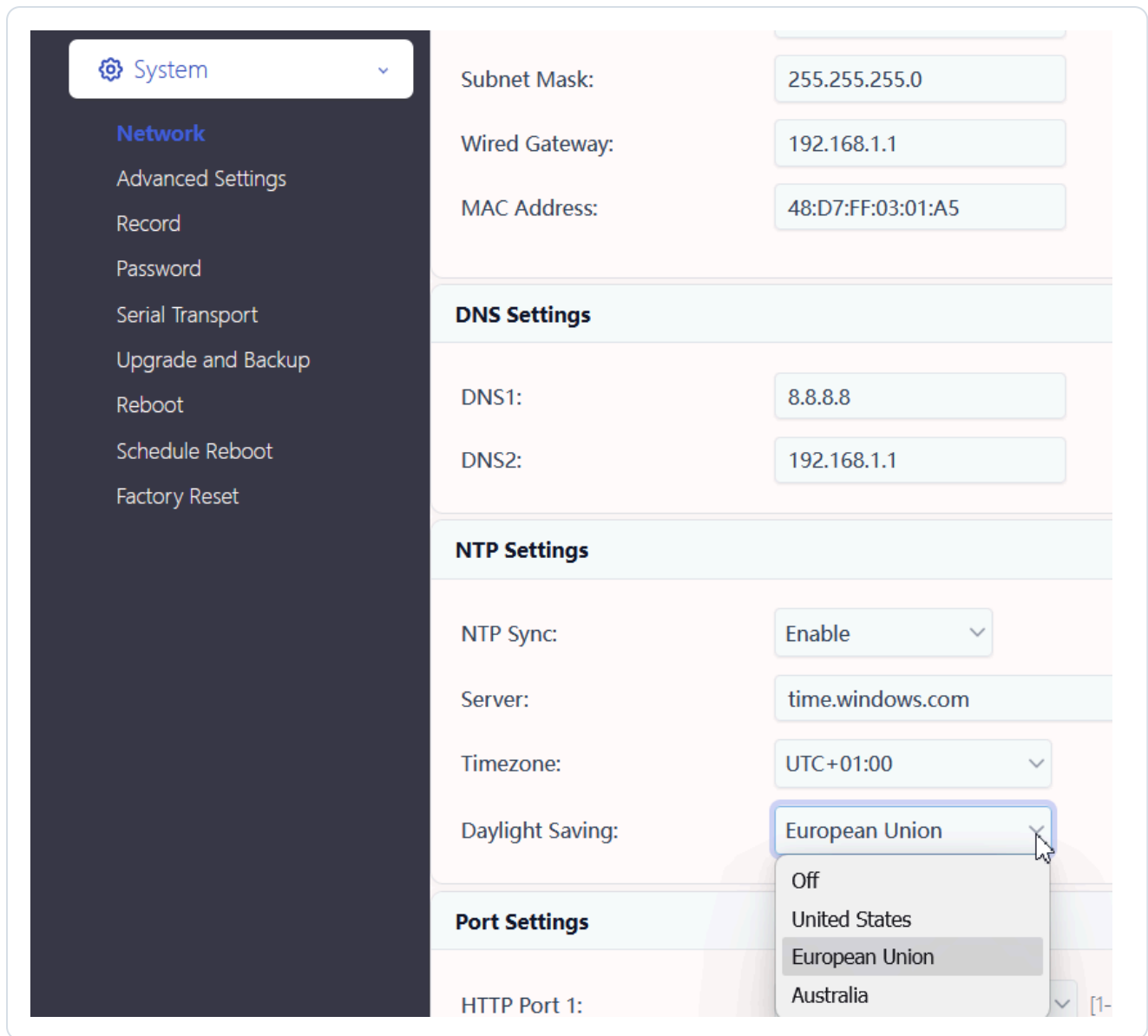
The image displays two screenshots of the BLANKOM H.265 WebUI interface.

The top screenshot shows the "Upload Firmware and Config" section. The left sidebar contains navigation links: Status, Encoder, OSD, System, Network, Advanced Settings, Record, Password, Serial Transport, Upgrade and Backup, Reboot, Schedule Reboot, and Factory Reset. The main content area shows a progress bar at 15% and a file selection box with "up_2.23_S6L55M.rar" selected. Below the file selection, there is a note: "Upload file name: up.rar or box.ini. Do not upload simultaneously. Do not power off during upload." and an "Upload" button. The "Backup Firmware and Config" section below it has "Backup Firmware" and "Backup Config" buttons.

The bottom screenshot shows the "Reboot Device" section. The left sidebar is the same as the top screenshot. The main content area has a message: "Click this button to restart the encoder." and a "Reboot" button. A modal dialog box is open in the foreground, displaying the IP address "192.168.1.168" and the message "Upload successful, please restart the system!" with a "OK" button.



Automatic summer/winter time switching works when NTP is enabled:



The WebRTC preview opens as a separate web page when enabled:

WHIP: Disabled

TRTC Room ID: Disabled

AliRTC Room ID: Disabled

[Video Preview \(WebRTC\)](#) [Video Preview \(HTML5\)](#)

Sub Stream 1

http://192.168.1.168/webrtc.html?group=0&stream=0

1920x1080
Resolution

50 fps
Framerate

3472.6 kbps
Bitrate

2.696
Packets

Advanced compression

Use advanced compression to improve the encoding efficiency, or find the best setting by testing:

System

Network
Advanced Settings
Record
Password
Serial Transport
Upgrade and Backup
Reboot
Schedule Reboot

No Signal: Show no-signal im

Encoder Parameters

Advanced compression mode: Enable

Color Range: TV

MIN_QP: 5 [1-35] Effective only when rate control mode is set to CBR

MAX_QP: 42 (MIN_QP-50] Effective only when rate control mode is set to CBR

In this mode, the direct preview from the input (WebRTC and Preview buttons) is not available:



Packets Sent: 511 (network test & system log)

Network TX Rate: 3.62 Mbps

Packets Dropped: 0

TCP Video Connections: 0 ([Details](#))

Advanced Compression Mode: Enabled

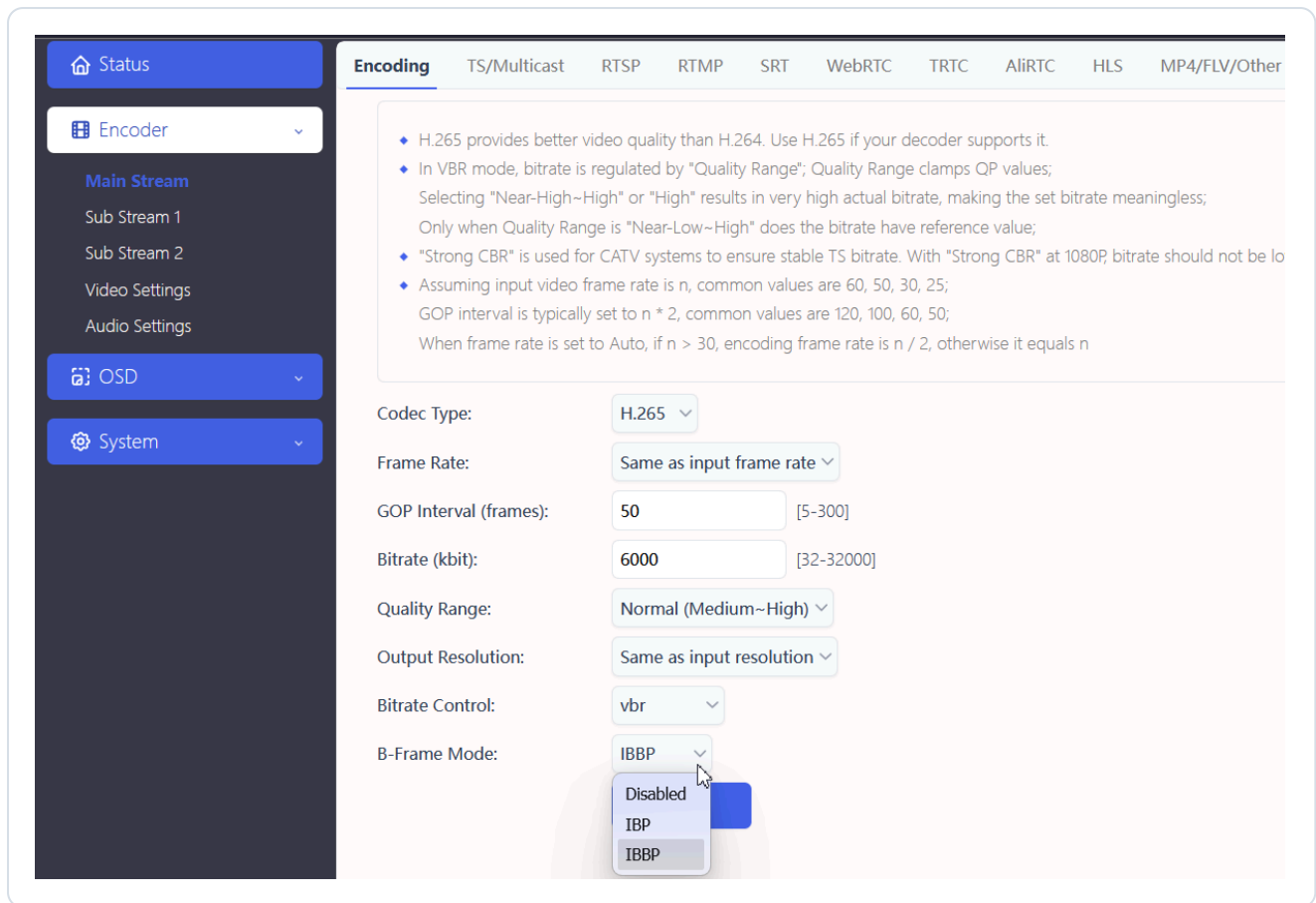
Recording Status



Changing essential modes such as advanced compression may require a complete reboot of the unit.

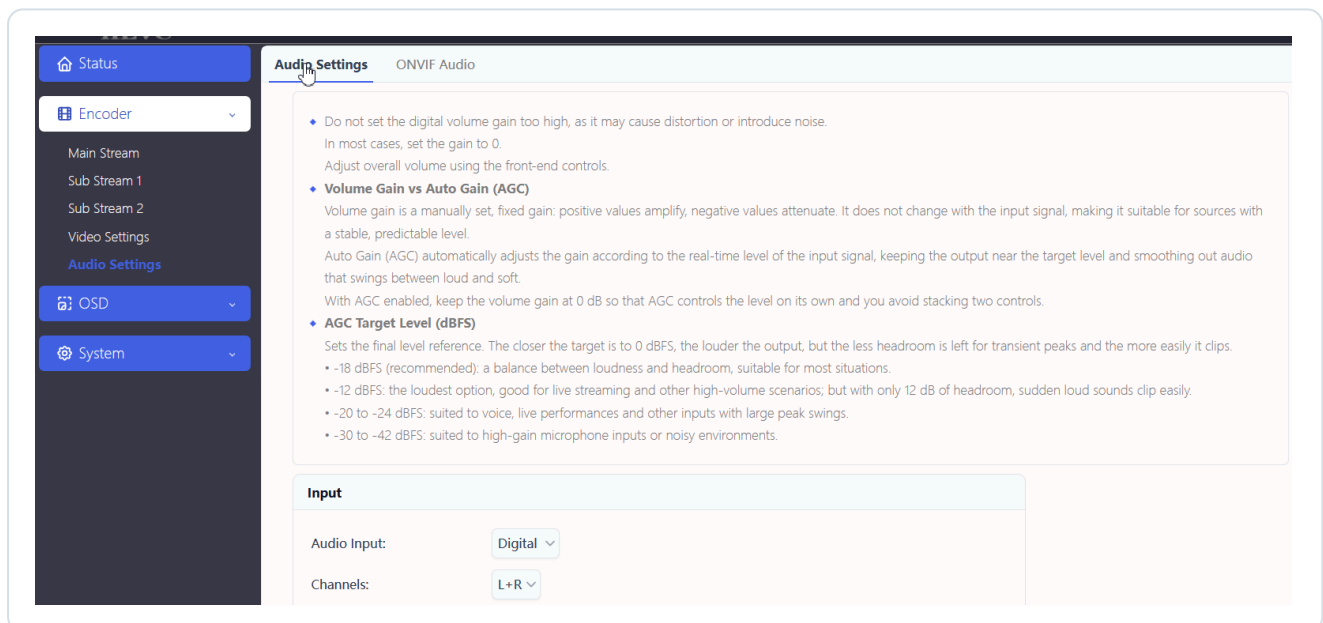
B-frame modes

B-frame modes can be enabled if needed:

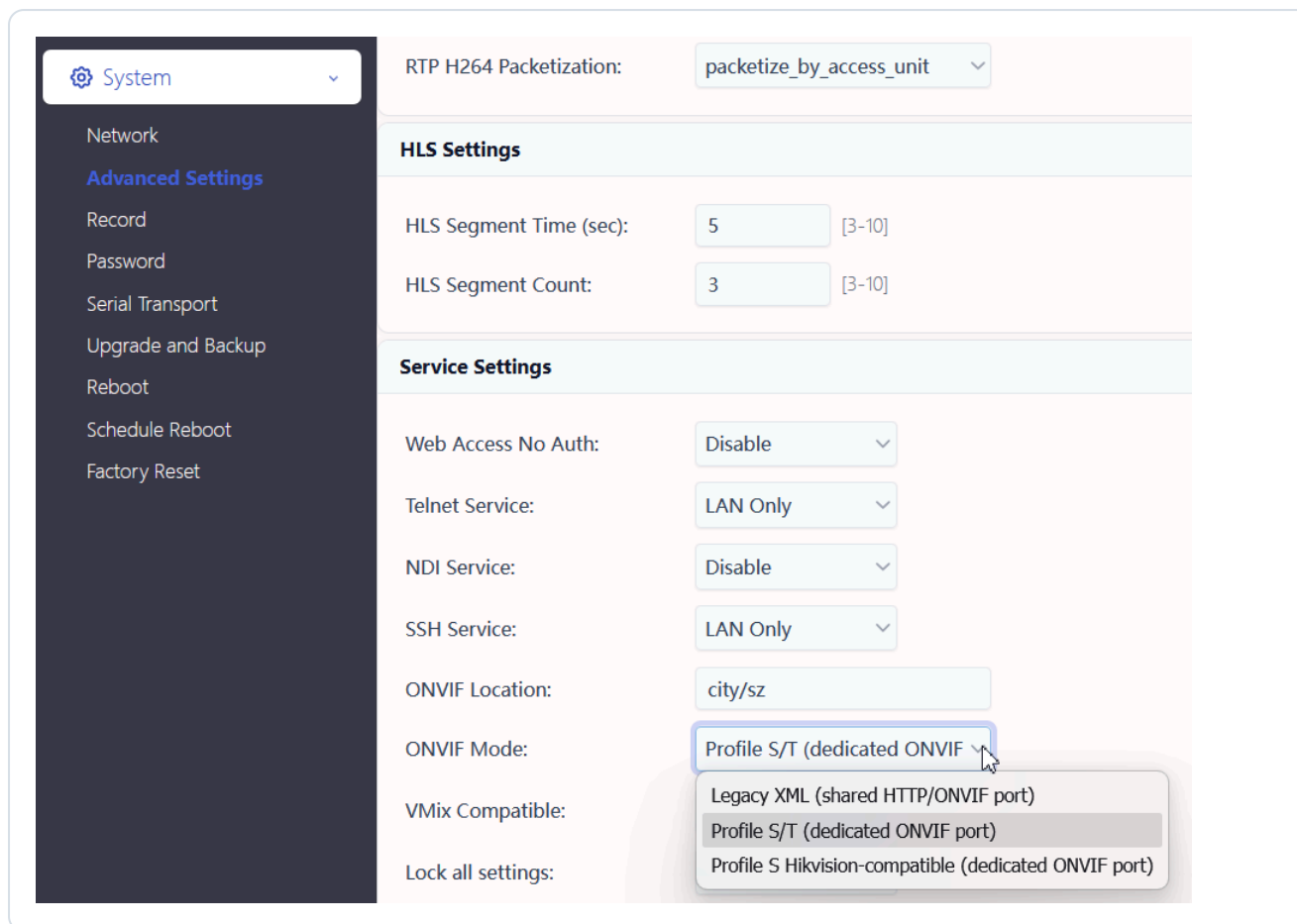


Audio settings and ONVIF

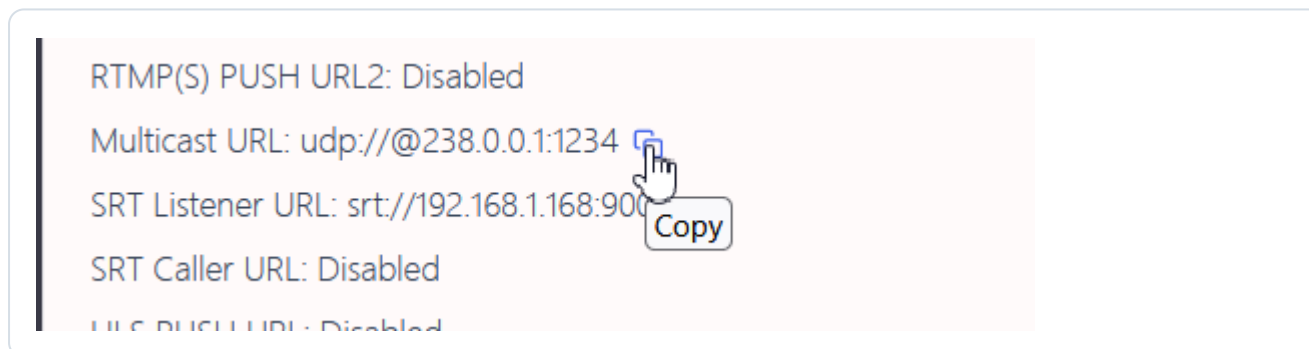
The audio settings now include explanations:



ONVIF now offers country and location settings, also in the audio settings, and a selection of different modes:



Stream addresses can be copied directly from the status page:



Also of interest – the automatic restart options:

Auto Restart

Disconnect Users on Input Change:

Disable



Auto Reboot on No Video:

Disable

Enable

Auto Reboot on No Audio:

Disable



Restart on frozen video:

Enable



Version history

TOPICS	VERSION
New web GUI and firmware 2.23; layout in the BLANKOM technical guide design; revised text	V2.0

Author: Ralf Riedel, Director Technical Sales & Engineering, IRENIS GmbH

Further questions?

Please contact our international IRENIS – BLANKOM team. As we serve customers in all time zones, we prefer written enquiries: tell us the products, quantities and application, and our engineers will reply with a technical assessment and a quotation.

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